

FIG. 1

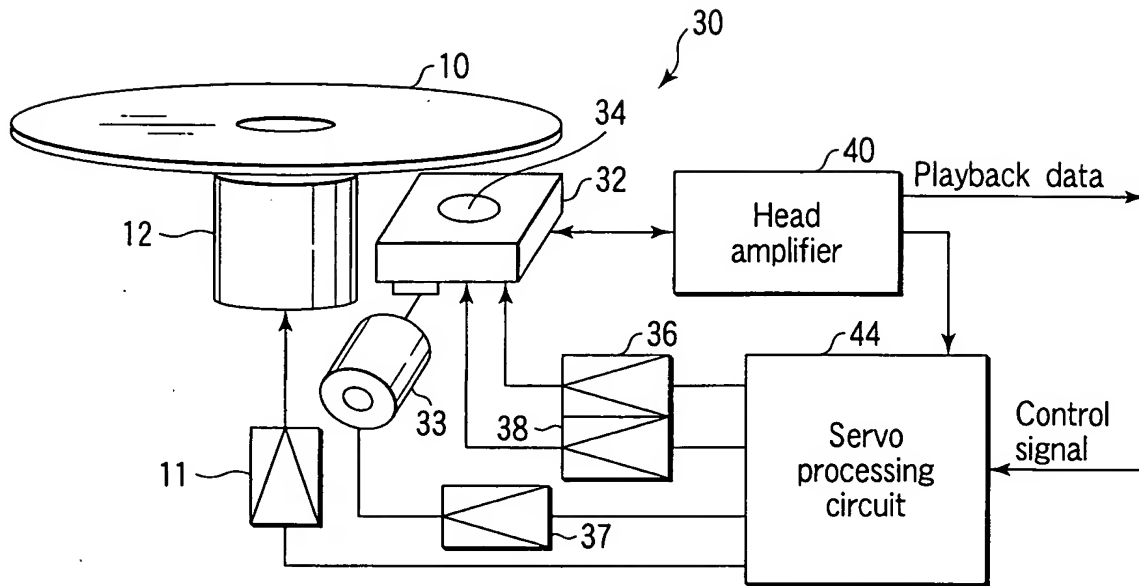


FIG. 2

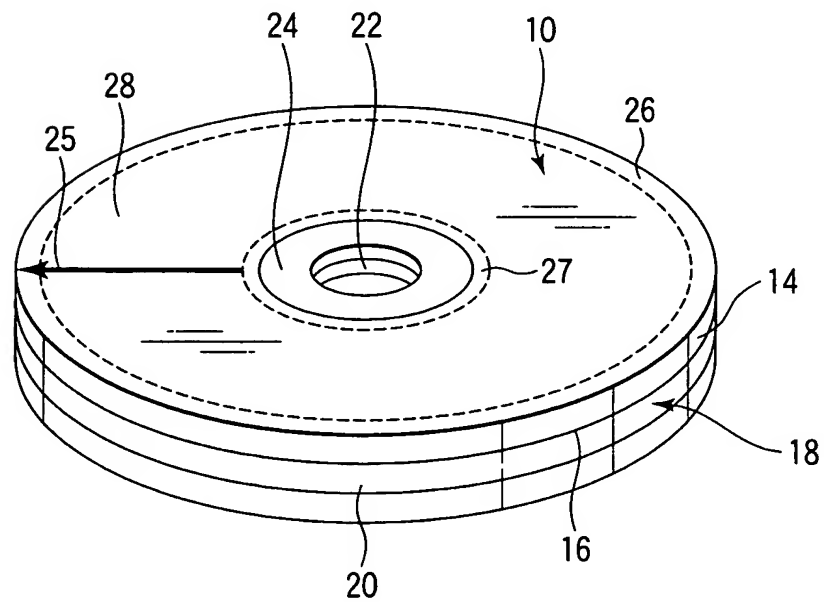
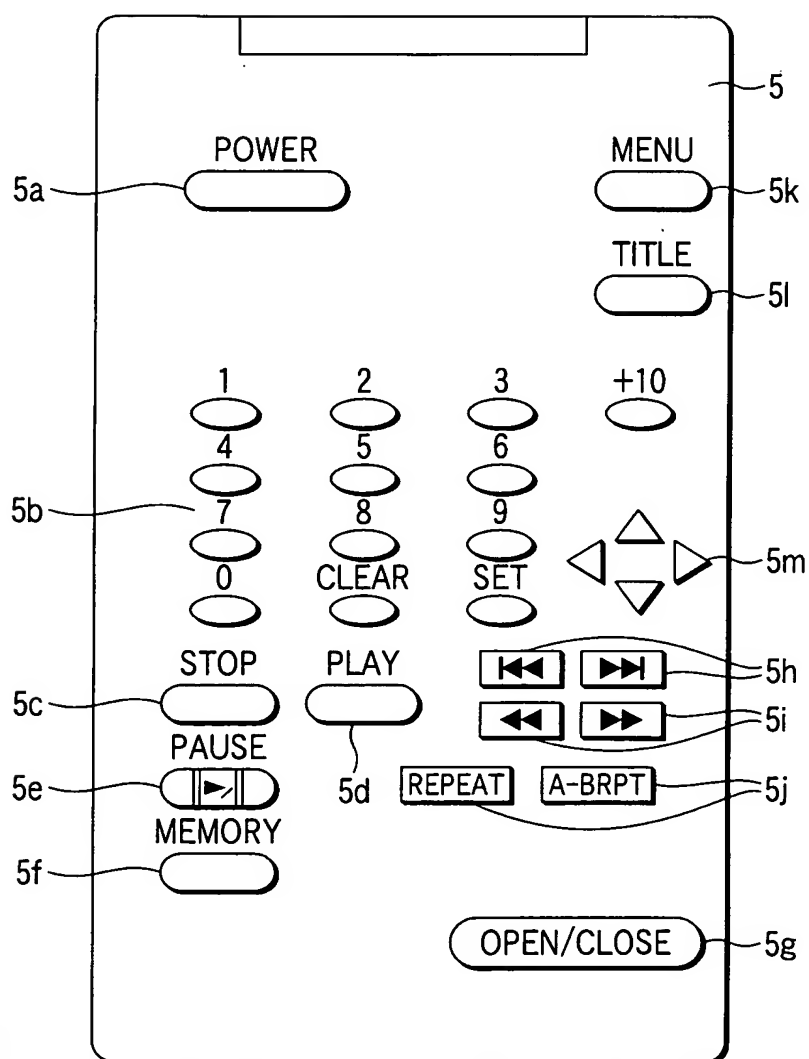
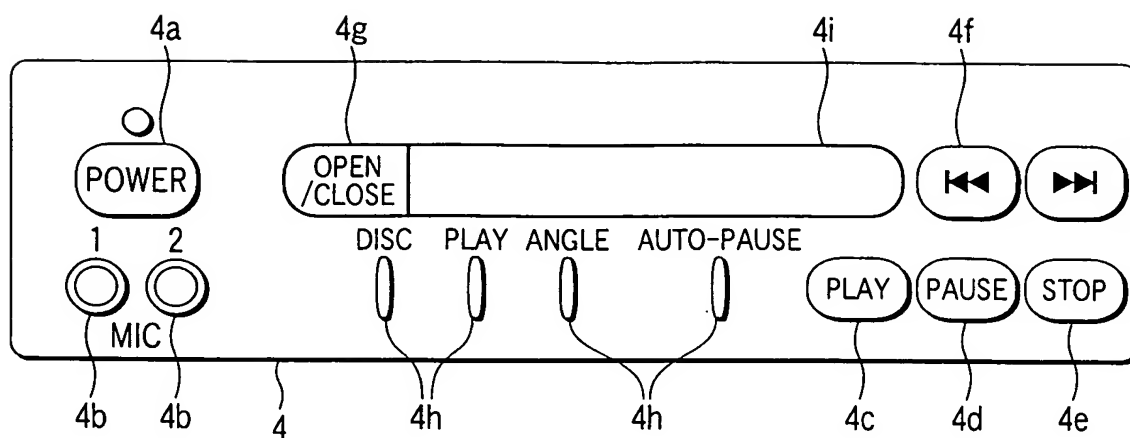


FIG. 3



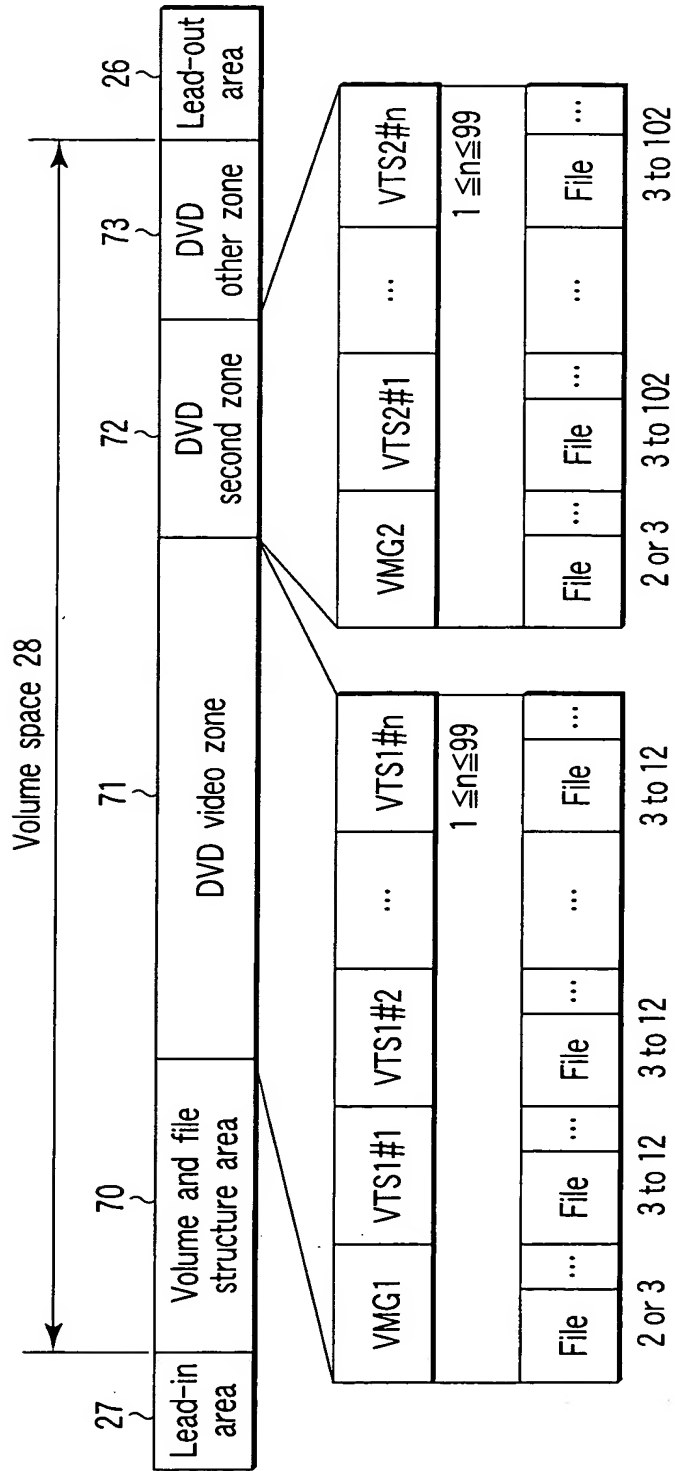


FIG. 6

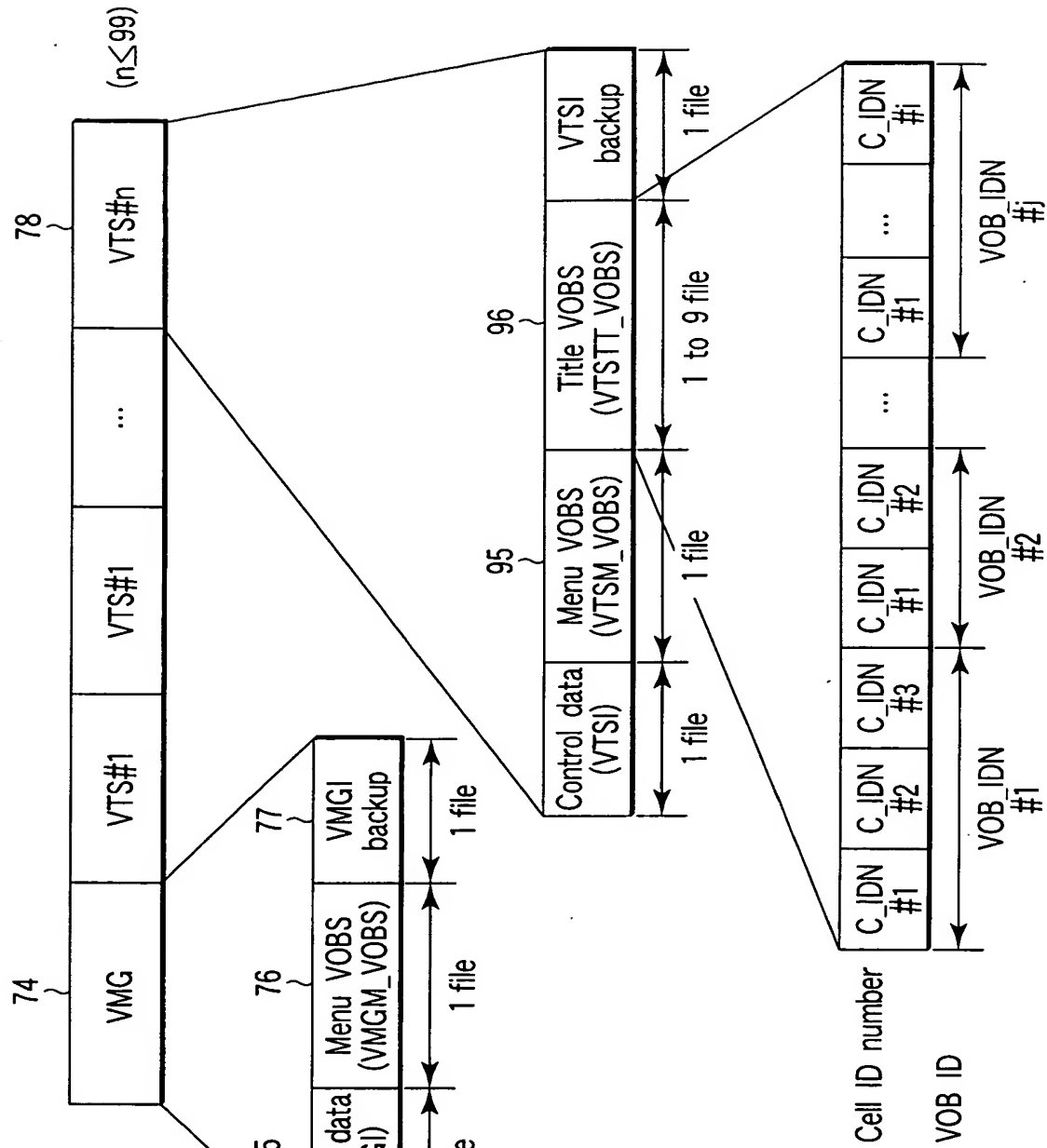


FIG. 7

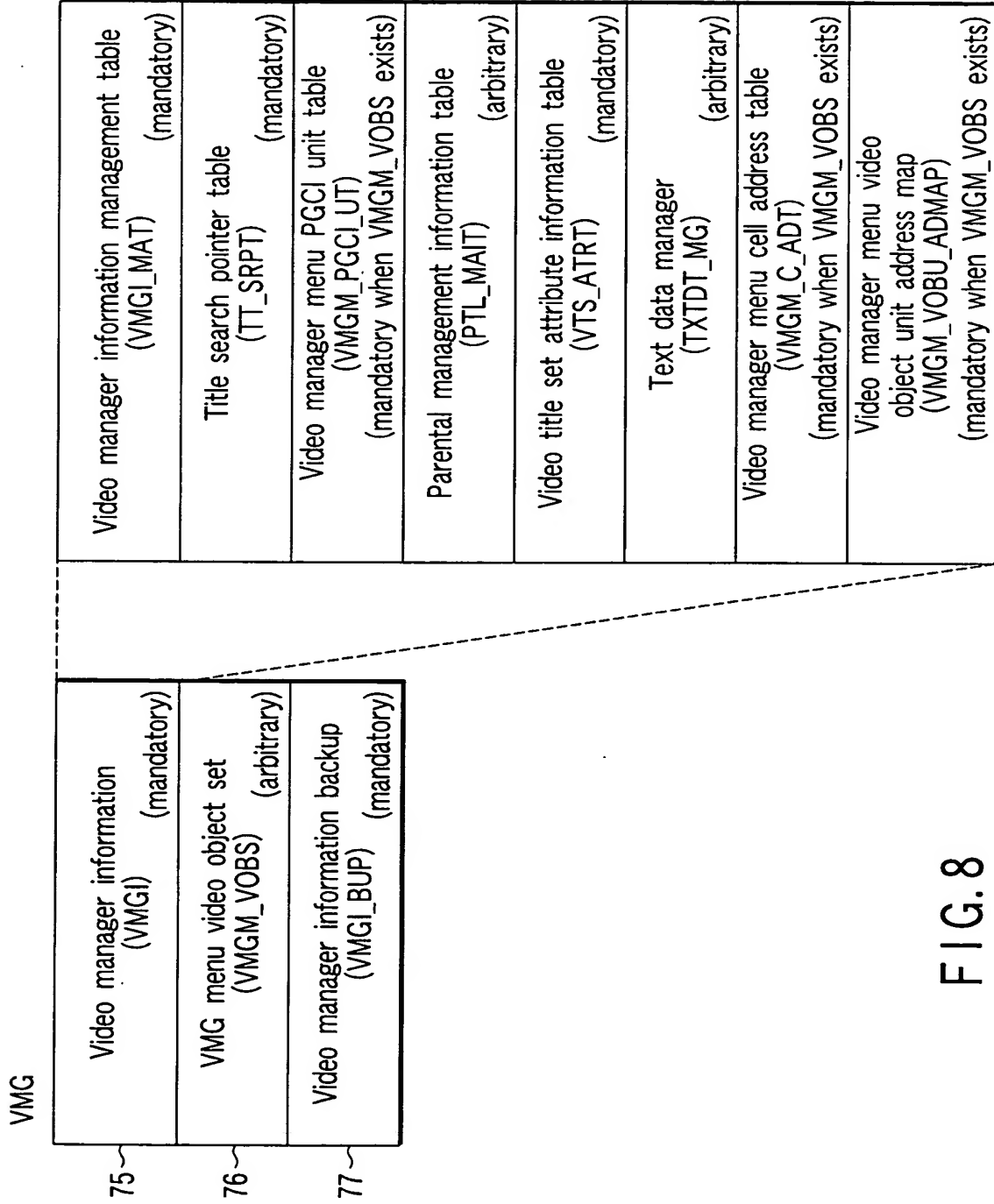


FIG. 8

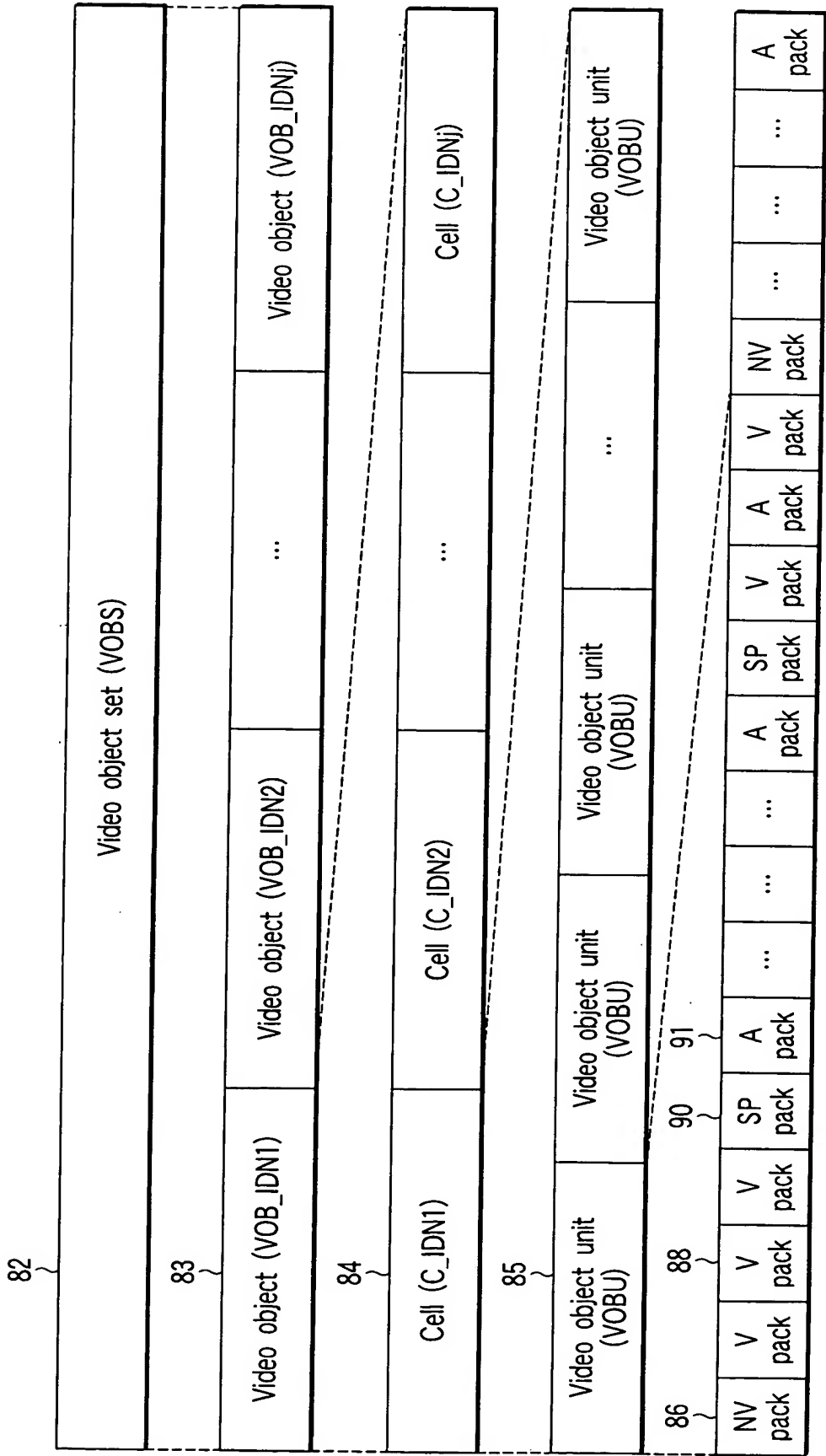


FIG. 9

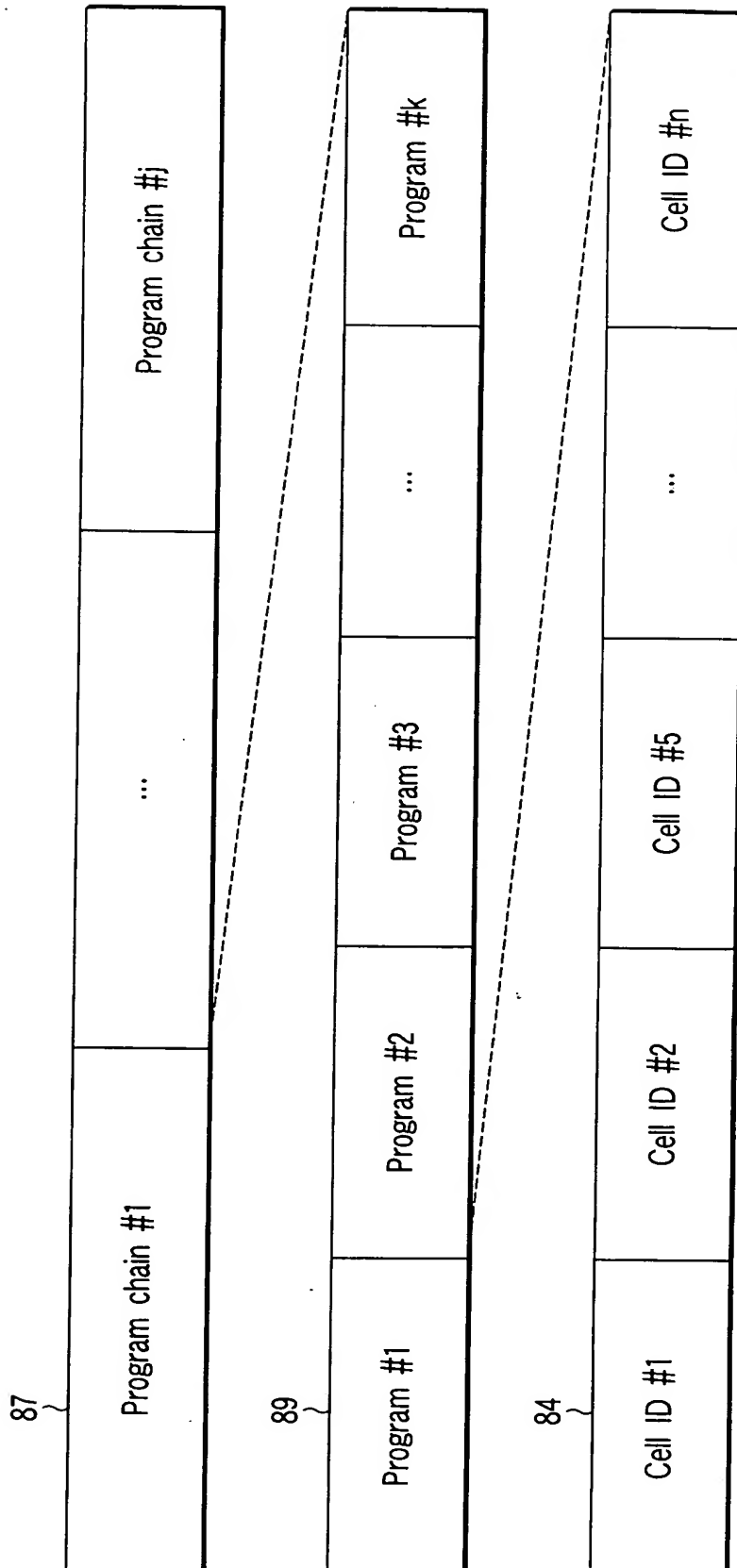


FIG. 10

VMGI_MAT			(Description order)
RBP		Contents	Number of bytes
0 to 11	VMG_ID	VMG Identifier	12 bytes
12 to 15	VMG_EA	End address of VMG	4 bytes
16 to 27	reserved	reserved	12 bytes
28 to 31	VMGI_EA	End address of VMGI	4 bytes
32 to 33	VERN	Version number of DVD Video Specifications	2 bytes
34 to 37	VMG_CAT	Video Manager Category	4 bytes
38 to 45	VLMS_ID	Volume Set Identifier	8 bytes
46 to 61	reserved	reserved	16 bytes
62 to 63	VTN_Ns	Number of Video Title Sets	2 bytes
64 to 95	PVR_ID	Provider unique ID	32 bytes
96 to 103	POS_CD	POS Code	8 bytes
104 to 127	reserved	reserved	24 bytes
128 to 131	VMGI_MAT_EA	End address of VMGI_MAT	4 bytes
132 to 135	FP_PGCI_SA	Start address of FP_PGCI	4 bytes
136 to 191	reserved	reserved	56 bytes
192 to 195	VMGM_VOBS_SA	Start address of VMGM_VOBS	4 bytes
196 to 199	TT_SRPT_SA	Start address of TT_SRPT	4 bytes
200 to 203	VMGM_PGCI_UT_SA	Start address of VMGM_PGCI_UT	4 bytes
204 to 207	PTL_MAINT_SA	Start address of PTL_MAINT	4 bytes
208 to 211	VTN_ATTR_SA	Start address of VTN_ATTR	4 bytes
212 to 215	TXTDT_MG_SA	Start address of TXTDT_MG	4 bytes
216 to 219	VMGM_C_ADT_SA	Start address of VMGM_C_ADT	4 bytes
220 to 223	VMGM_VOBU_ADMAP_SA	Start address of VMGM_VOBU_ADMAP	4 bytes
224 to 255	reserved	reserved	32 bytes
256 to 257	VMGM_V_ATTR	Video attribute of VMGM	2 bytes
258 to 259	VMGM_AST_Ns	Number of Audio streams of VMGM	2 bytes
260 to 267	VMGM_AST_ATTR	Audio stream attribute of VMGM	8 bytes
268 to 323	reserved	reserved	56 bytes
324 to 339	reserved	reserved	16 bytes
340 to 341	VMGM_SPST_Ns	Number of Sub-picture streams of VMGM	2 bytes
342 to 347	VMGM_SPST_ATTR	Sub-picture stream attribute of VMGM	6 bytes
348 to 1023	reserved	reserved	676 bytes
1024 to 2291 (max.)	FP_PGCI	First Play PGCI	0 or (236 to 1268) bytes

FIG. 11

VERN

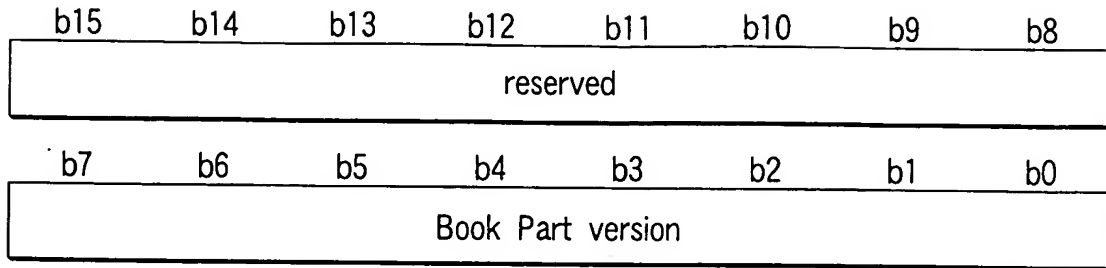


FIG. 12

VMG_CAT

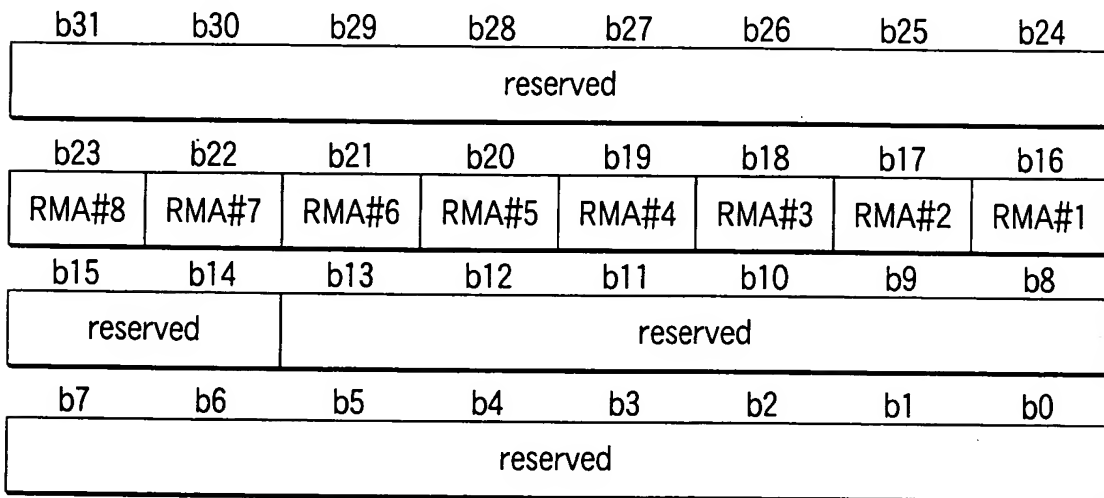
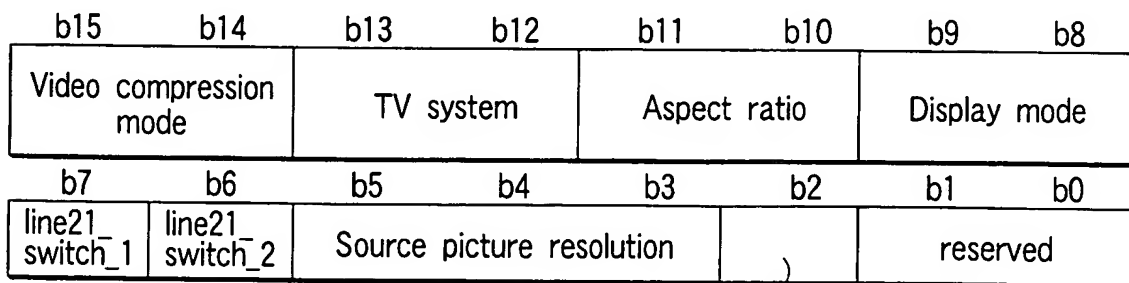


FIG. 13

VMGM_V_ATR



Source picture letterboxed

FIG. 14

VMGM_SPST_Ns

b15	b14	b13	b12	b11	b10	b9	b8
reserved							
b7	b6	b5	b4	b3	b2	b1	b0
reserved	Number of sub-picture streams						

FIG. 15

VMGM_SPST_ATR

b47	b46	b45	b44	b43	b42	b41	b40
Sub-picture coding mode			reserved			reserved	
b39	b38	b37	b36	b35	b34	b33	b32
reserved							
b31	b30	b29	b28	b27	b26	b25	b24
reserved							
b23	b22	b21	b20	b19	b18	b17	b16
reserved							
b15	b14	b13	b12	b11	b10	b9	b8
reserved							
b7	b6	b5	b4	b3	b2	b1	b0
reserved							

FIG. 16

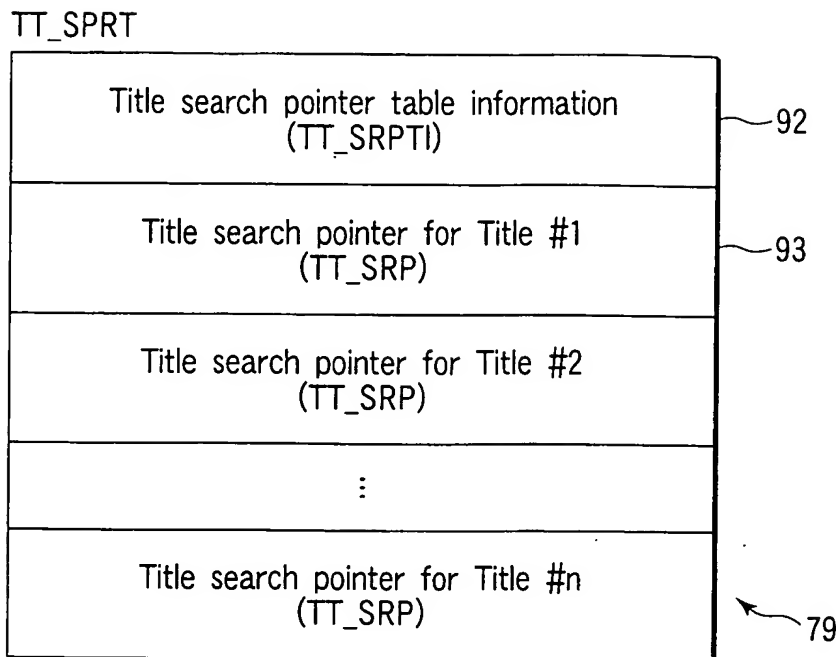


FIG. 17

TT_SRPTI	(Description order)
Contents	
TT_Ns	Number of title search pointers
TT_SRPT_EA	End address of TT_SRPT

FIG. 18

TT_SRP	(Description order)
Contents	
PTT_Ns	Number of part-of-titles
VTSN	Video title set number
VTS_TTN	Video title set title number
VTS_SA	Start address of video title set

FIG. 19

VMGM_PGCI_UT

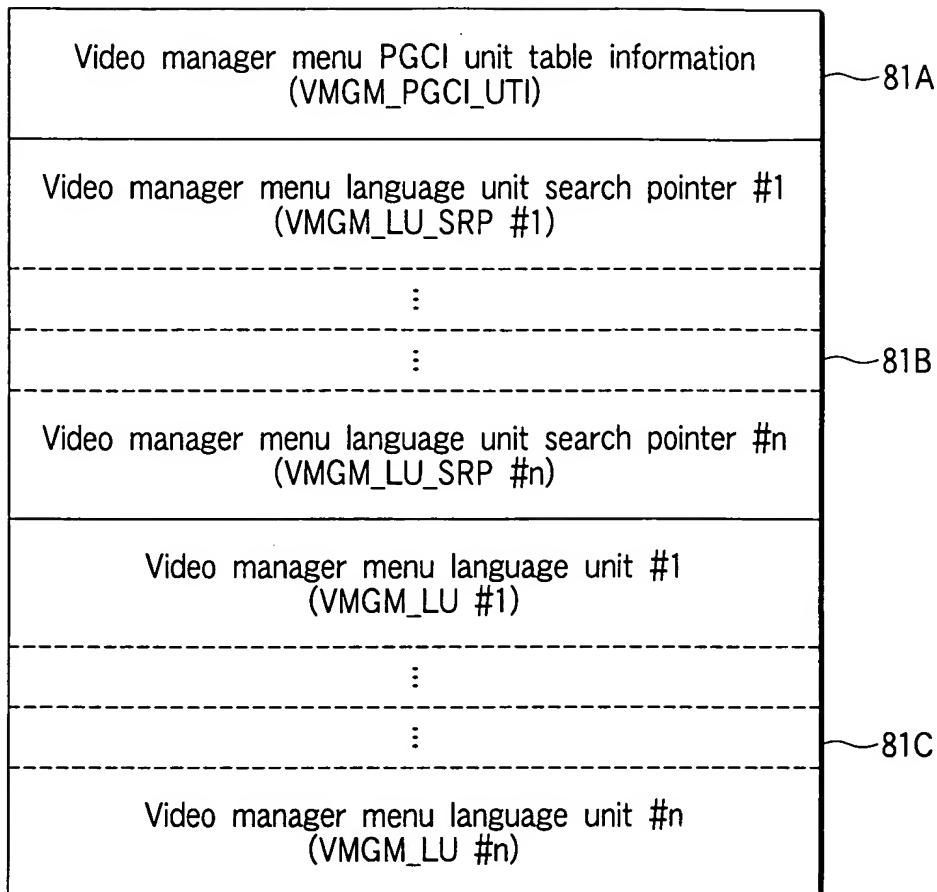


FIG. 20

VMGM_PGCI_UTI

	Contents
VMGM_LU_Ns	Number of video manager menu language units
VMGM_PGCI_UT_EA	End address of video manager menu language unit

FIG. 21

VMGM_LU_SRP

	Contents
VMGM_LCD	Video manager menu language code
VMGM_LU_SA	Start address of video manager menu language unit

FIG. 22

VMGM_LU

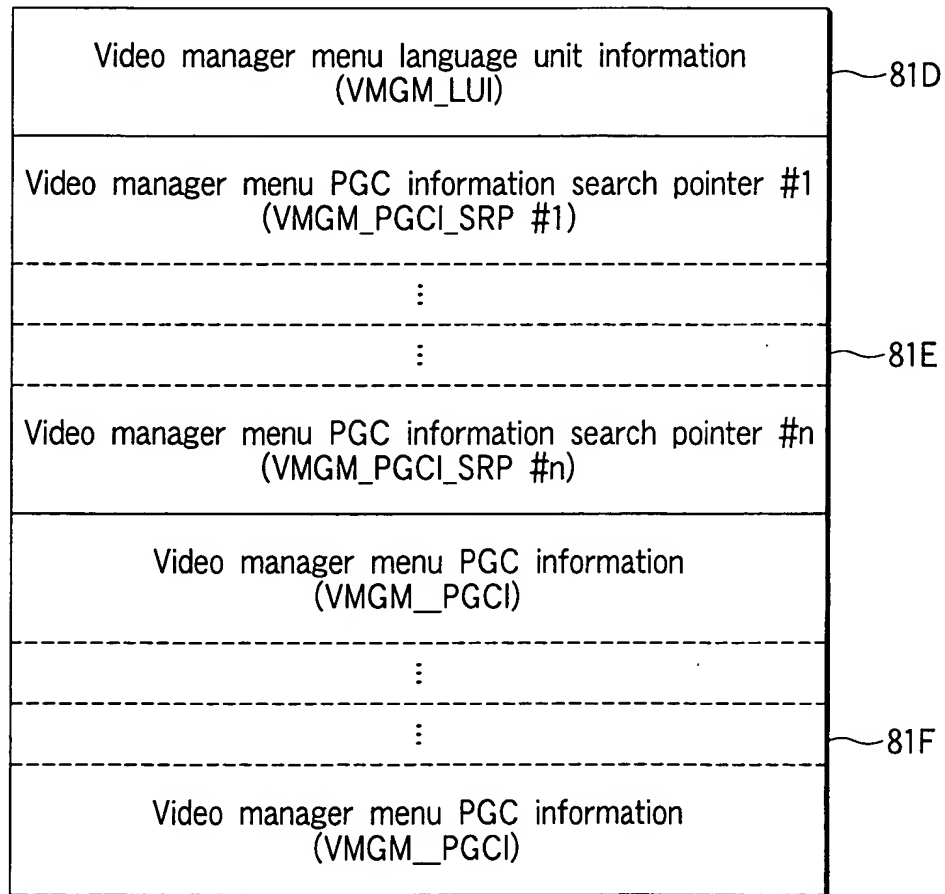


FIG. 23

VMGM_LUI		(Description order)
	Contents	Number of bytes
(1) VMGM_PGCI_SRP_Ns	Number of VMGM_PGCI_SRPSSs	2 bytes
reserved	reserved	2 bytes
(2) VMGM_LU_EA	End address of VMGM_LU	4 bytes

FIG. 24

VMGM_PGCI_SRP		(Description order)
	Contents	Number of bytes
(1) VMGM_PGC_CATs	VMGM_PGC category	4 bytes
(2) VMGM_PGCI_SA	Start address of VMGM_PGCI	4 bytes

FIG. 25

VMGM_PGC_CAT							
b31	b30	b29	b28	b27	b26	b25	b24
Entry type	reserved			Menu ID			
b23	b22	b21	b20	b19	b18	b17	b16
Block mode		Block type		reserved		VOB_VERN	
b15	b14	b13	b12	b11	b10	b9	b8
PTL_ID_FLD (Upper bits)							
b7	b6	b5	b4	b3	b2	b1	b0
PTL_ID_FLD (Lower bits)							

FIG. 26

VMGM_C_ADTI		(Description order)
	Contents	Number of bytes
(1) VMGM_VOB_Ns	Number of VOBs in VMGM_VOBS	2 bytes
reserved	reserved	2 bytes
(2) VMGM_LU_EA	End address of VMGM_LU	4 bytes

FIG. 27

VMGM_CPI		(Description order)
	Contents	Number of bytes
(1) VMGM_VOB_IDN	VOB ID number in VMGM_VOBS	2 bytes
(2) VMGM_C_IDN	Cell_ID number of VMGM_CP	1 bytes
(3) VMGM_VOB_CAT	VMGM_VOB category	1 bytes
(4) VMGM_CP_SA	Start address of VMGM_CP	4 bytes
(5) VMGM_CP_EA	End address of VMGM_CP	4 bytes

FIG. 28

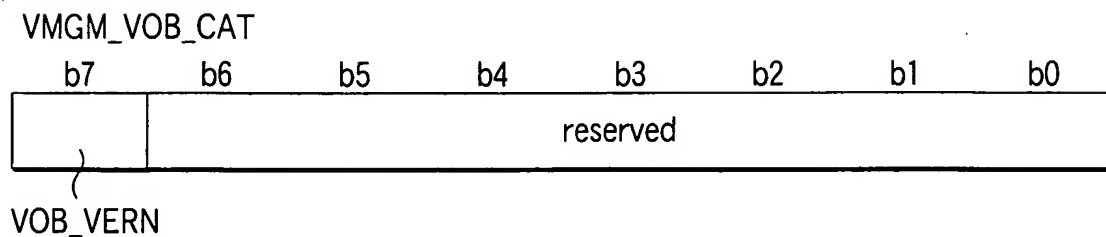


FIG. 29

VTs

Video Title Set Information (VTSl)	(Mandatory)
Video Object Set for Video Title Set Menu (VTSM_VOBS)	(Optional)
Video Object Set for Video Title Set Title (VTSTT_VOBS)	(Mandatory)
Backup of Video Title Set Information (VTSl_BUP)	(Mandatory)

Video Title Set Information Management Table (VTSl_MAT)	(Mandatory)
Video Title Set Part of Title Search Pointer Table (VTS_PTT_SRPT)	(Mandatory)
Video Title Set Program Chain Information Table (VTS_PGCIT)	(Mandatory)
Video Title Set Menu PGC Unit Table (VTSM_PGC Unit)	(Mandatory when VTSM_VOBS exists)
Video Title Set Time Map Table (VTS_TMAPT)	(Optional)
Video Title Set Menu Cell Address Table (VTSM_C_ADT)	(Mandatory when VTSM_VOBS exists)
Video Title Set Menu Video Object Unit Address Map (VTSM_VOBU_ADMAP)	(Mandatory when VTSM_VOBS exists)
Video Title Set Cell Address Table (VTS_C_ADT)	(Mandatory)
Video Title Set Video Object Unit Address Map (VTS_VOBU_ADMAP)	(Mandatory)

FIG. 30

VTSI_MAT			(Description order)
RBP		Contents	Number of bytes
0 to 11	VTS_ID	VTS Identifier	12 bytes
12 to 15	VTS_EA	End address of VTS	4 bytes
16 to 27	reserved	reserved	12 bytes
28 to 31	VTSI_EA	End address of VTSI	4 bytes
32 to 33	VERN	Version number of DVD Video Specification	2 bytes
34 to 37	VTS_CAT	VTS Category	4 bytes
38 to 127	reserved	reserved	90 bytes
128 to 131	VTSI_MAT_EA	End address of VTSI_MAT	4 bytes
132 to 191	reserved	reserved	60 bytes
192 to 195	VTSM_VOBS_SA	Start address of VTSM_VOBS	4 bytes
196 to 199	VTSTT_VOBS_SA	Start address of VTSTT_VOBS	4 bytes
200 to 203	VTS_PTT_SRPT_SA	Start address of VTS_PTT_SRPT	4 bytes
204 to 207	VTS_PGCIT_SA	Start address of VTS_PGCIT	4 bytes
208 to 211	VTSM_PGCI_UT_SA	Start address of VTSM_PGCI_UT	4 bytes
212 to 215	VTS_TMAPT_SA	Start address of VTS_TMAPT	4 bytes
216 to 219	VTSM_C_ADT_SA	Start address of VTSM_C_ADT	4 bytes
220 to 223	VTSM_VOB_U_ADMAP_SA	Start address of VTSM_VOB_U_ADMAP	4 bytes
224 to 227	VTS_C_ADT_SA	Start address of VTS_C_ADT	4 bytes
228 to 231	VTS_VOB_U_ADMAP_SA	Start address of VTS_VOB_U_ADMAP	4 bytes
232 to 255	reserved	reserved	24 bytes
256 to 257	VTSM_V_ATR	Video attribute of VTSM	2 bytes
258 to 259	VTSM_AST_Ns	Number of Audio streams of VTSM	2 bytes
260 to 267	VTSM_AST_ATR	Audio stream attribute of VTSM	8 bytes
268 to 323	reserved	reserved	56 bytes
324 to 339	reserved	reserved	16 bytes
340 to 341	VTSM_SPST_Ns	Number of Sub-picture streams of VTSM	2 bytes
342 to 347	VTSM_SPST_ATR	Sub-picture stream attribute of VTSM	6 bytes
348 to 511	reserved	reserved	164 bytes
512 to 513	VTS_V_ATR	Video attribute of VTS	2 bytes
514 to 515	VTS_AST_Ns	Number of Audio streams of VTS	2 bytes
516 to 579	VTS_AST_ATRT	Audio stream attribute table of VTS	64 bytes
580 to 595	reserved	reserved	16 bytes
596 to 597	VTS_SPST_Ns	Number of Sub-picture streams of VTS	2 bytes
598 to 789	VTS_SPST_ATRT	Sub-picture stream attribute table of VTS	192 bytes
790 to 791	reserved	reserved	2 bytes
792 to 983	VTS_MU_AST_ATRT	Multichannel Audio stream attribute table of VTS	192 bytes
984 to 1023	reserved	reserved	40 bytes
1024 to 2047	reserved	reserved	1024 bytes

FIG. 31

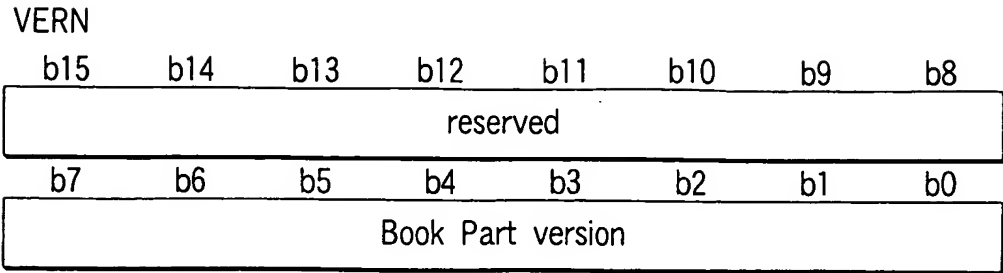


FIG. 32

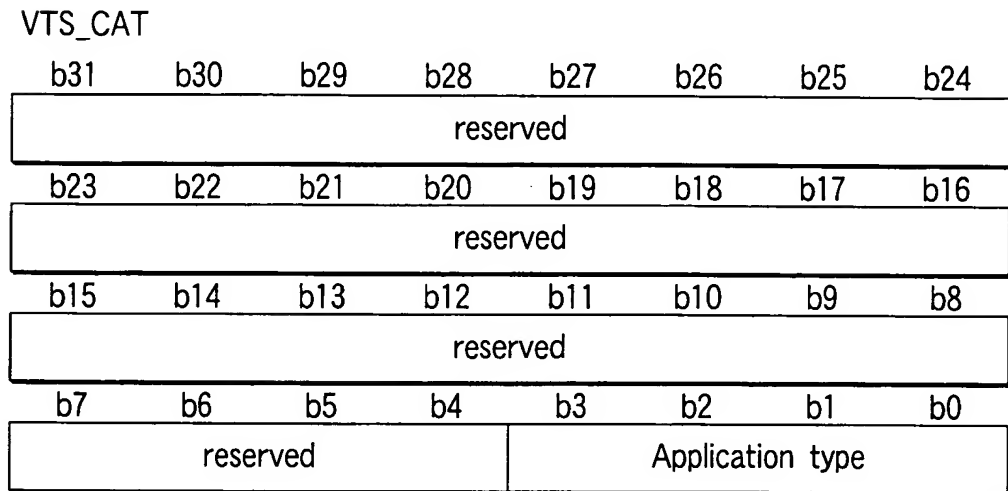


FIG. 33

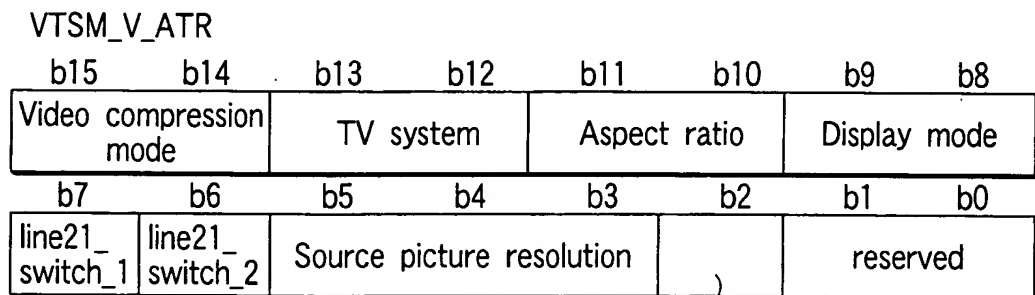


FIG. 34

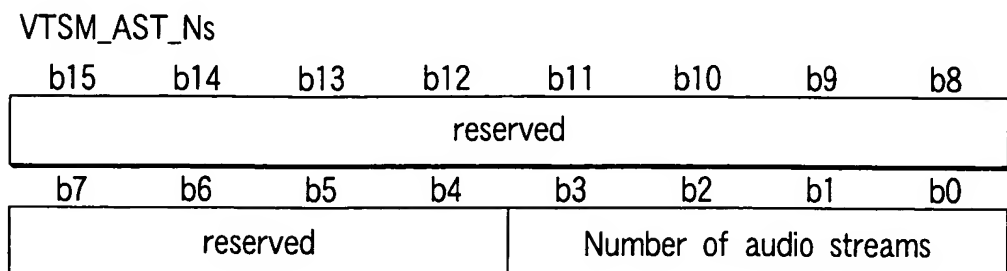


FIG. 35

VTSM_SPST_ATR

b47	b46	b45	b44	b43	b42	b41	b40
Sub-picture coding mode			reserved			reserved	
b39	b38	b37	b36	b35	b34	b33	b32
reserved							
b31	b30	b29	b28	b27	b26	b25	b24
reserved							
b23	b22	b21	b20	b19	b18	b17	b16
reserved							
b15	b14	b13	b12	b11	b10	b9	b8
reserved							
b7	b6	b5	b4	b3	b2	b1	b0
reserved							

FIG. 36

VTs_V_ATR

b15	b14	b13	b12	b11	b10	b9	b8
Video compression mode		TV system		Aspect ratio		Display mode	
b7	b6	b5	b4	b3	b2	b1	b0
line21_switch_1	line21_switch_2	Source picture resolution				reserved	
					Source picture letterboxed		Film camera mode

FIG. 37

Contents of audio stream attribute VTS_AST_ATR

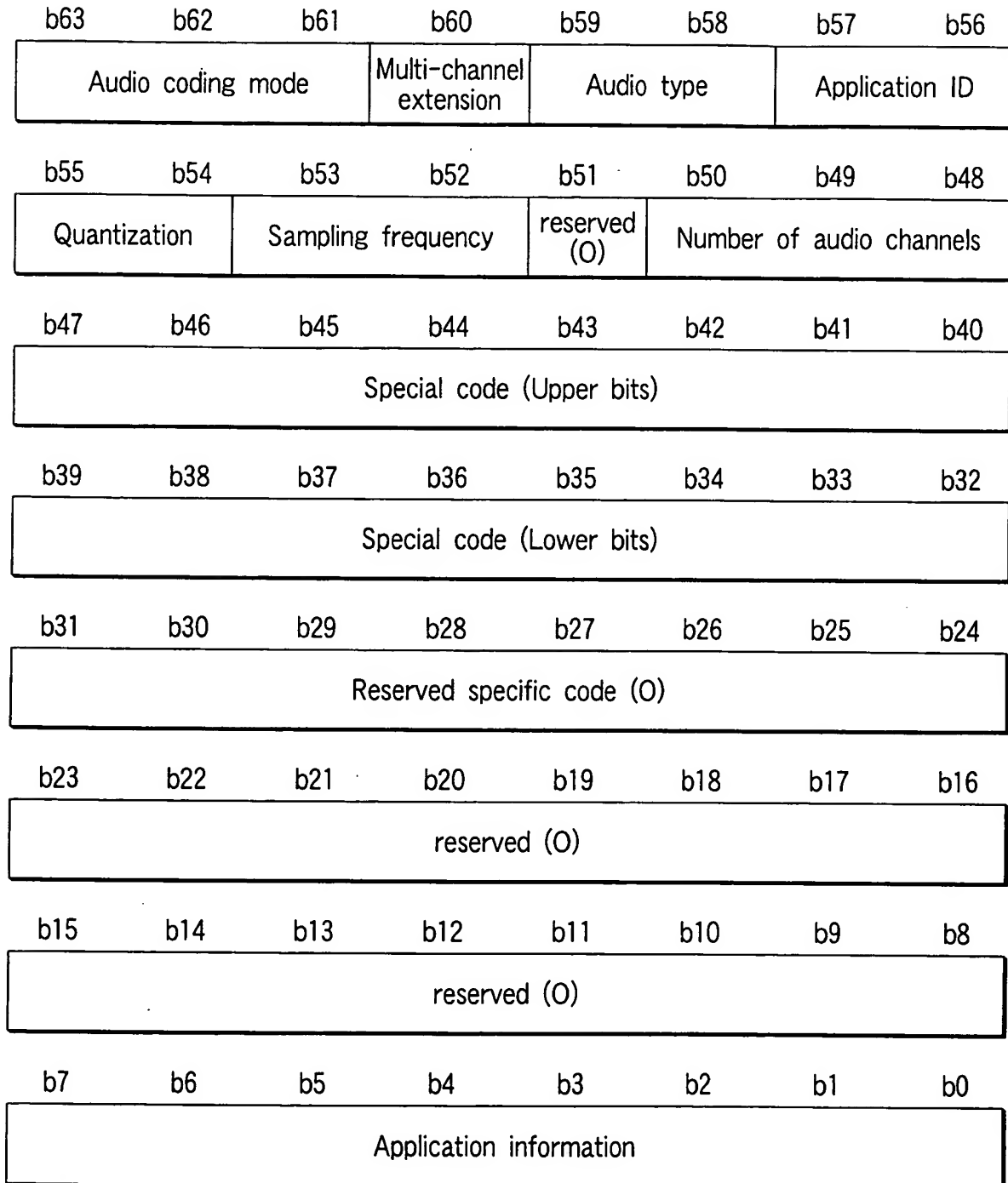


FIG. 38

Contents of sub-picture stream attribute VTS_SPST_ATR

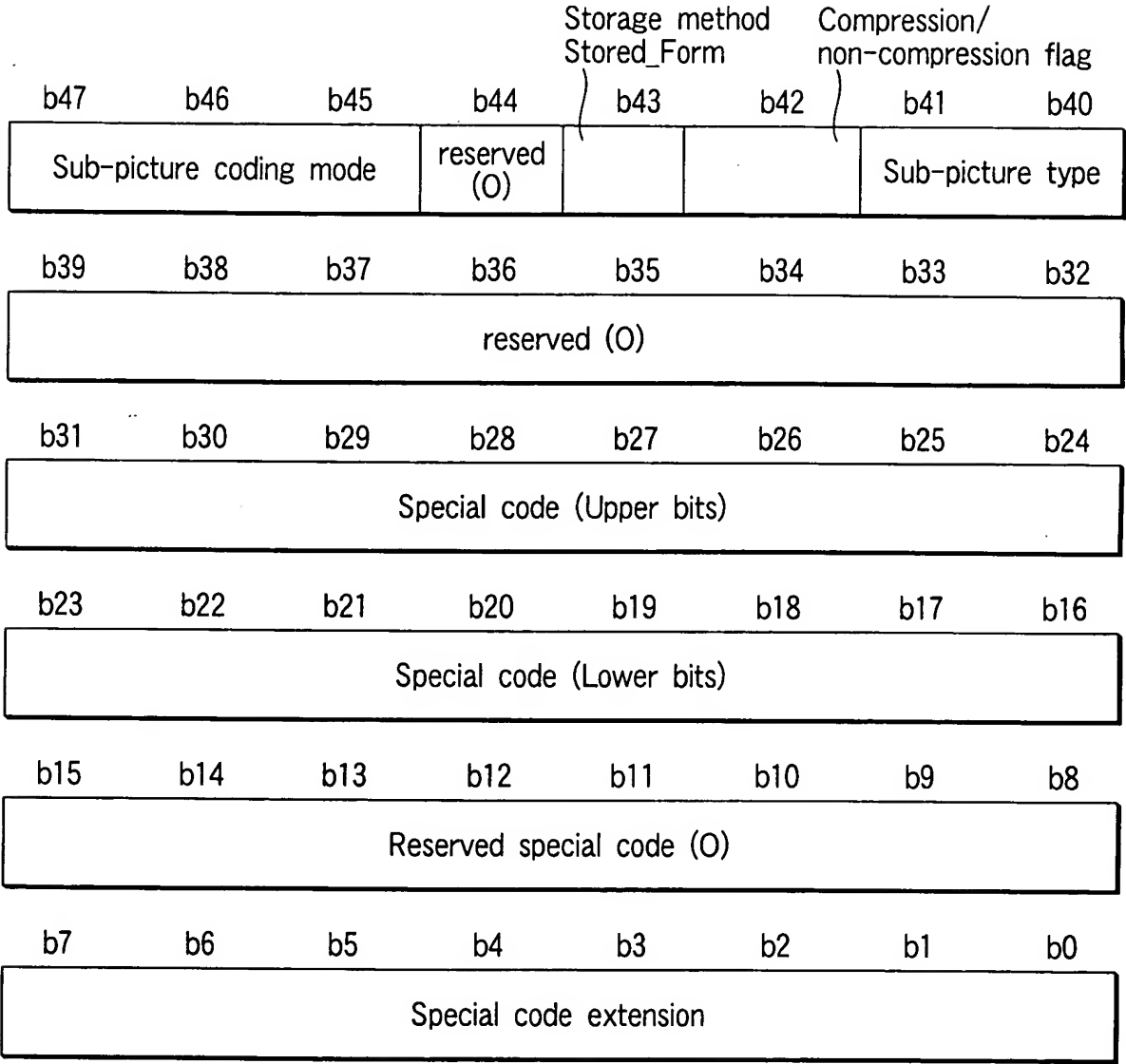


FIG. 39

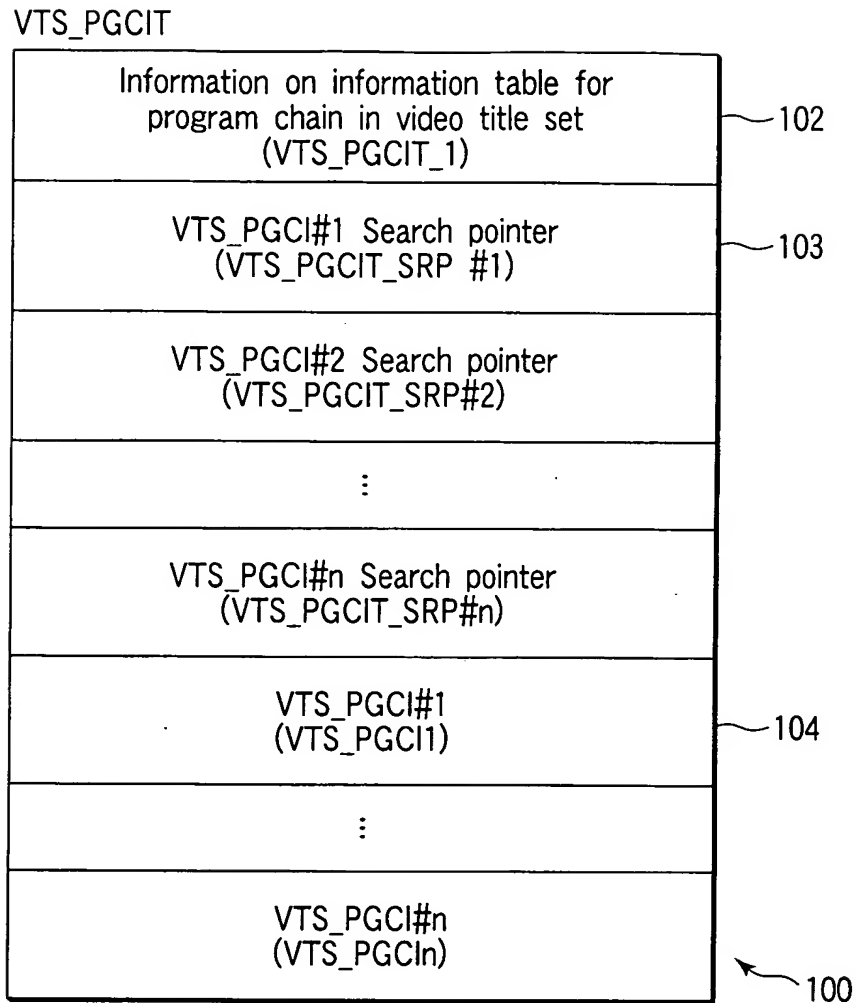


FIG. 40

VTS_PGCIT_I (Description order)	
Contents	
VTS_PGC_Ns	Number of VTS_PGCs
VTS_PGCIT_EA	End address of VTS_PGCIT

FIG. 41

VTS_PGCIT_SRP (Description order)	
Contents	
VTS_PGC_CAT	VTS_PGC category
VTS_PGCi_SA	Start address of VTS_PGC information

FIG. 42

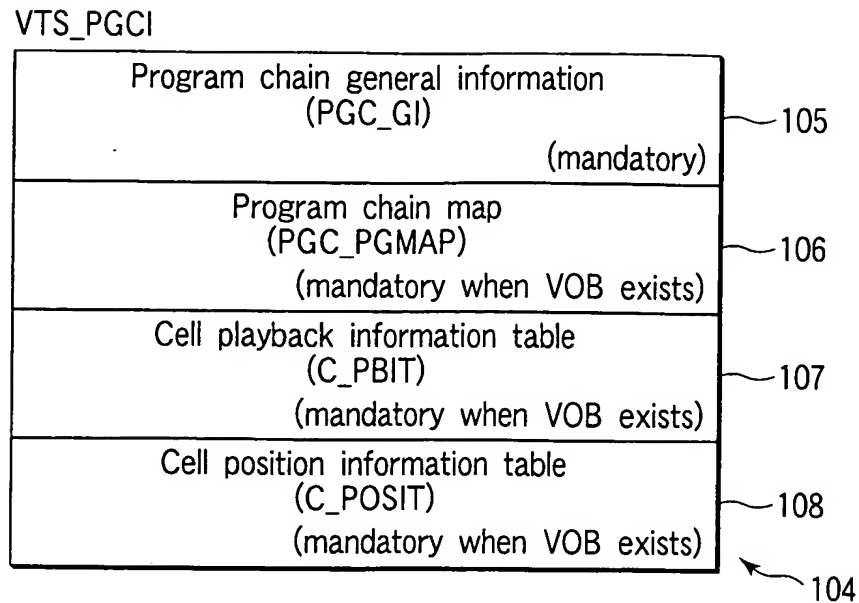
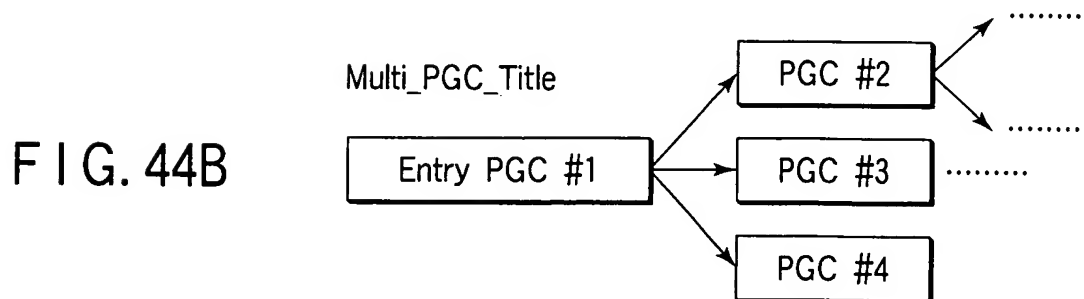
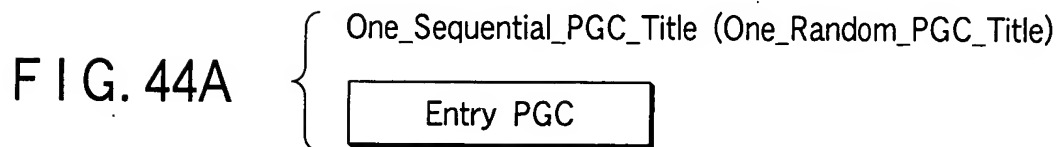


FIG. 43



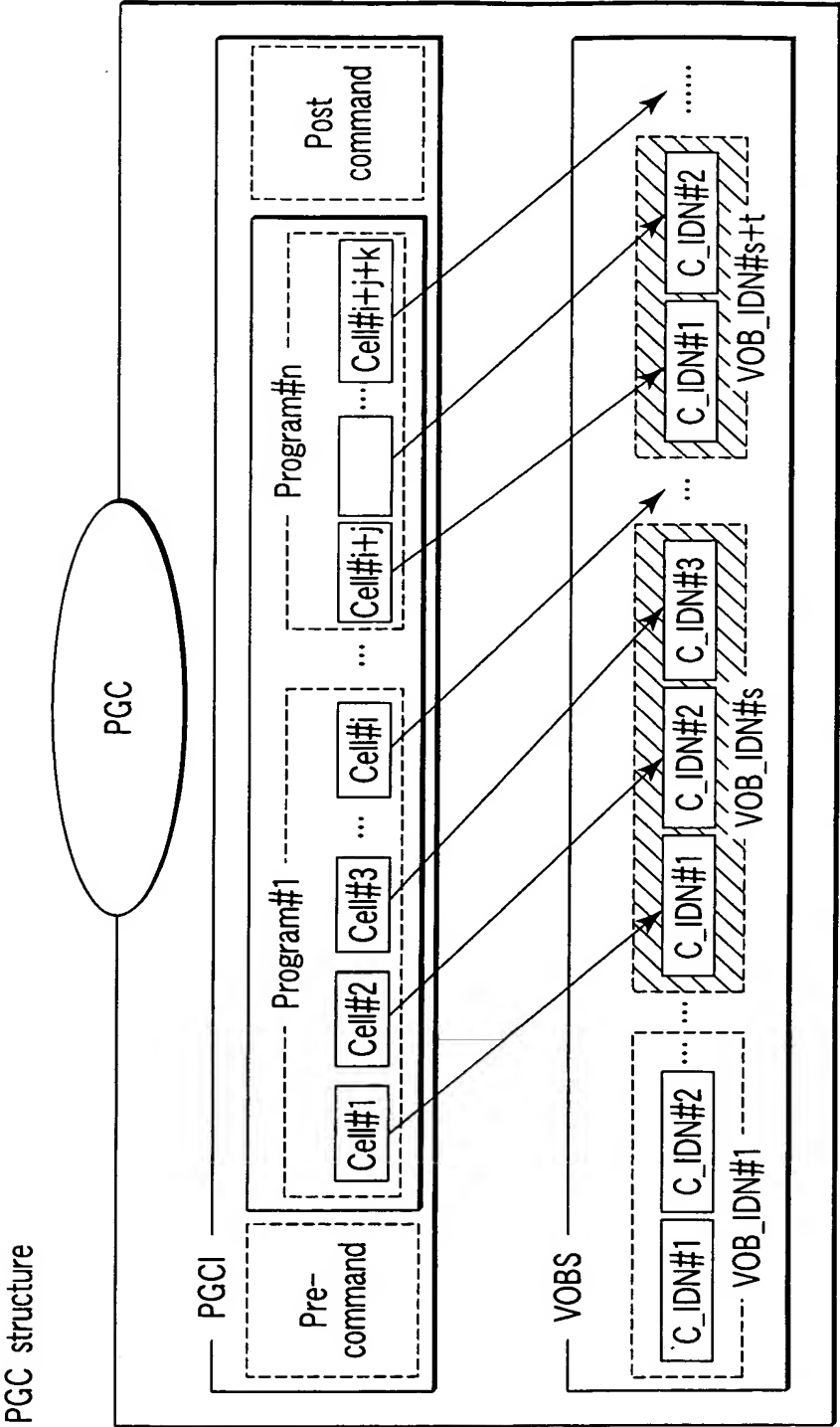


FIG. 45

PGCI structure

Program chain general information (PGC_GI) (mandatory)
Program chain command table (PGC_CMDT) (arbitrary)
Program chain program map (PGC_PGMAP) (mandatory when C_PBIT exists)
Cell playback information table (C_PBIT) (mandatory)
Cell position information table (C_POSIT) (mandatory when C_PBIT exists)

FIG. 46

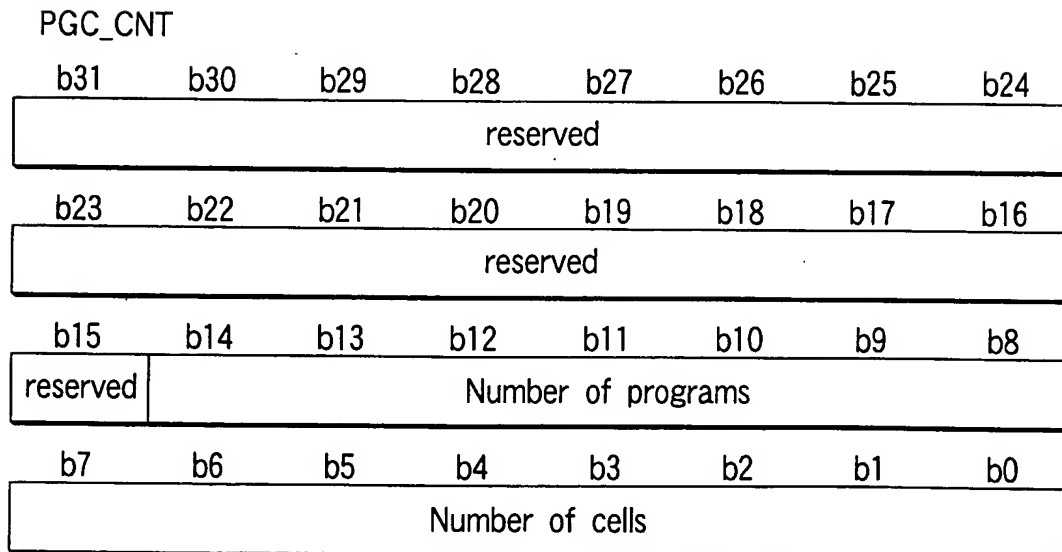


FIG. 48

PGC_GI		(Description order)	
RBP		Contents	Number of bytes
0 to 3	(1) PGC_CNT	PGC Contents	4 bytes
4 to 7	(2) PGC_PB_TM	PGC Playback Time	4 bytes
8 to 11	(3) PGC_UOP_CTL	PGC User Operation Control	4 bytes
12 to 27	(4) PGC_AST_CTLT	PGC Audio stream Control Table	16 bytes
28 to 155	(5) PGC_SPST_CTLT	PGC Sub-picture stream Control Table	128 bytes
156 to 163	(6) PGC_NV_CTL	PGC Navigation Control	8 bytes
164 to 227	(7) PGC_SP_PLT	PGC Sub-picture Palette	4 bytes × 16
228 to 229	(8) PGC_CMDT_SA	Start address of PGC_CMDT	2 bytes
230 to 231	(9) PGC_PGMAP_SA	Start address of PGC_PGMAP	2 bytes
232 to 233	(10) C_PBIT_SA	Start address of C_PBIT	2 bytes
234 to 235	(11) C_POSIT_SA	Start address of C_POSIT	2 bytes
		Total	236 bytes

FIG. 47

PGC_SPST_CTL

b31	b30	b29	b28	b27	b26	b25	b24
Availability flag	HD-flag	reserved	Decoding sub-picture stream number for 4:3/HD				
b23	b22	b21	b20	b19	b18	b17	b16
reserved			Decoding sub-picture stream number for wide aspect ratio				
b15	b14	b13	b12	b11	b10	b9	b8
reserved			Decoding sub-picture stream number for letterbox				
b7	b6	b5	b4	b3	b2	b1	b0
reserved			Decoding sub-picture stream number for pan/scan				

FIG. 49

PGC_SP_PLT

b31	b30	b29	b28	b27	b26	b25	b24
Contrast							
b23	b22	b21	b20	b19	b18	b17	b16
Luminance signal (Y)							
b15	b14	b13	b12	b11	b10	b9	b8
Color difference signal (Cr = R-Y)							
b7	b6	b5	b4	b3	b2	b1	b0
Color difference signal (Cb = B-Y)							

FIG. 50

PGC_PGMAP

Entry cell number of program #1
Entry cell number of program #2
⋮
Entry cell number of program #n

FIG. 51

Entry cell number

Contents	
ECELLN	Entry cell number

FIG. 52

C_PBIT

Cell playback information #1 (C_PBI1)	
Cell playback information #2 (C_PBI2)	
:	
Cell playback information #n (C_PBI _n)	

FIG. 53

C_PBI

Contents	
C_CAT	Cell category
C_PBTM	Cell playback time
C_FVOBU_SA	Start address of first VOB in cell
C_LVOBU_SA	Start address of last VOB in cell

FIG. 54

C_POSI

Cell position information #1 (C_POSIT1)	
:	
Cell position information #n (C_POSIT _n)	

FIG. 55

C_POSI

Contents	
C_VOB_IDN	VOB ID number in cell
C_IDN	ID number of the cell

FIG. 56

VTSM_PGI_UT

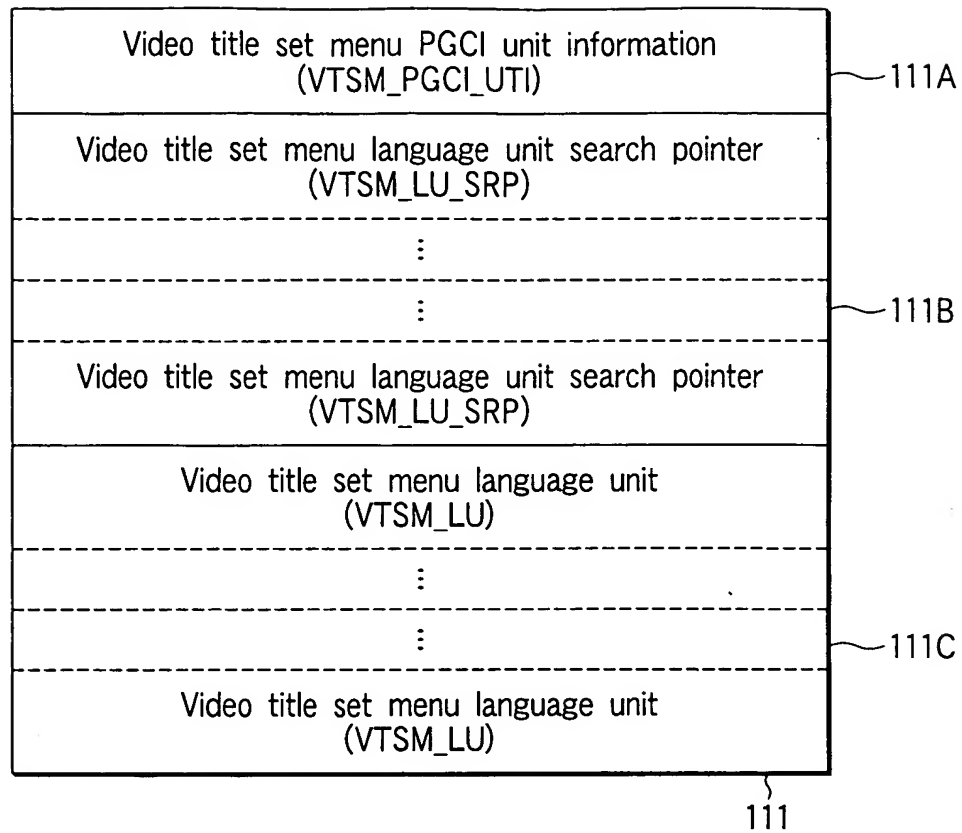


FIG. 57

VTSM_PGCi_UTI

	Contents
VTSM_LU_Ns	Number of video title set menu language units
VTSM_PGCi_UT_EA	End address of video title set menu language unit

FIG. 58

VTSM_LU_SRP

	Contents
VTSM_LCD	Video title set menu language code
VTSM_LU_SA	Start address of video title set menu language unit

FIG. 59

VTSM_LU

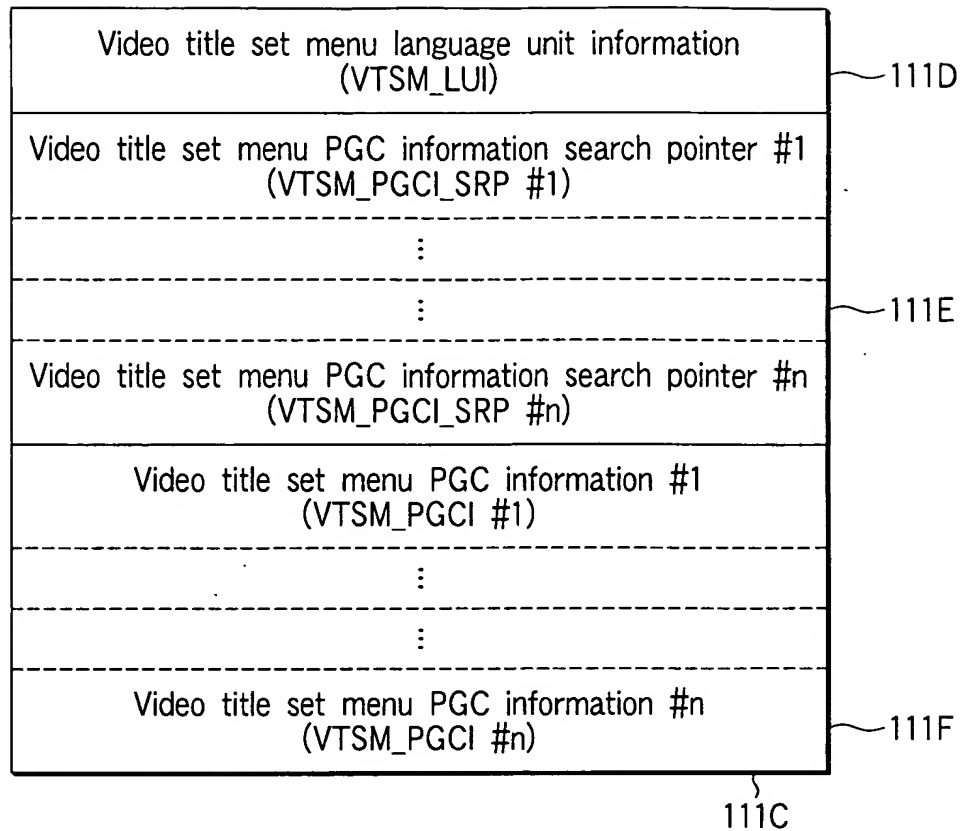


FIG. 60

VTSM_LUI

	Contents
VTSM_PGC_Ns	Number of VTSM program chain information items
VTSM_LU_EA	End address of video title set menu PGC information

FIG. 61

VTSM_PGCI_SRP

	Contents
VTSM_PGC_CAT	Category of program chain of video title set menu
VTSM_PGCI_SA	Start address of VTSM program chain information

FIG. 62

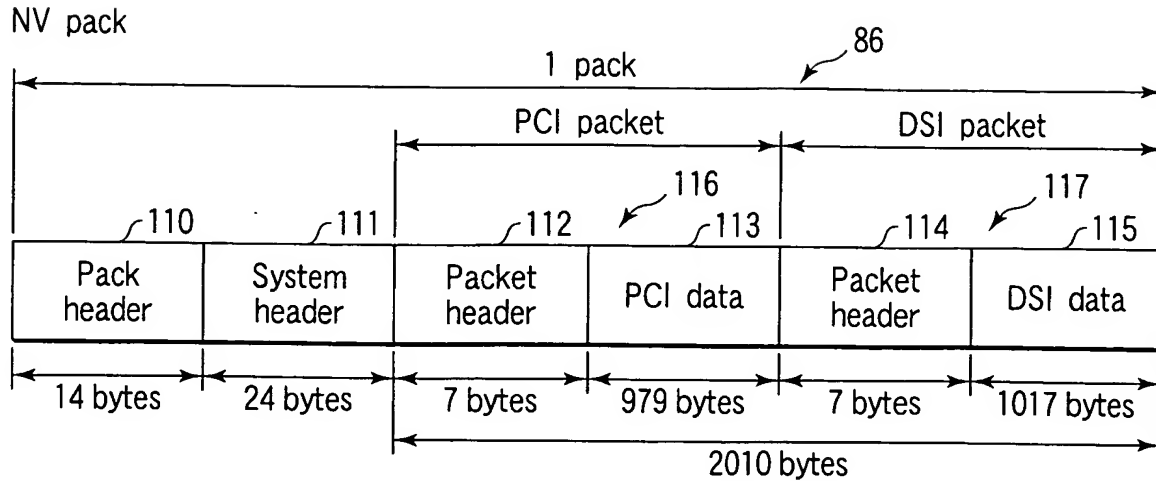


FIG. 63

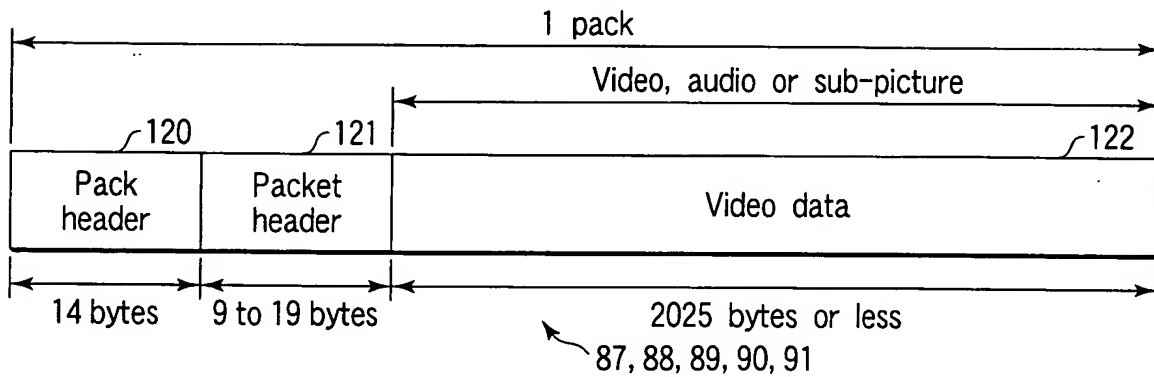


FIG. 64

PCI	(Description order)	
	Contents	Number of bytes
PCI_GI	PCI general information	60 bytes
NSML_AGLI	Non-Angle information for seamless	36 bytes
HLI	Highlight information	766 bytes
RECI	Storage information	117 bytes
	Total	979 bytes

FIG. 65

FIG. 67

NSML_AGLI

Contents	
NSML_AGL_C1_DSTA	Address of destination VOB in AGI_C1
NSML_AGL_C2_DSTA	Address of destination VOB in AGI_C2
NSML_AGL_C3_DSTA	Address of destination VOB in AGI_C3
NSML_AGL_C4_DSTA	Address of destination VOB in AGI_C4
NSML_AGL_C5_DSTA	Address of destination VOB in AGI_C5
NSML_AGL_C6_DSTA	Address of destination VOB in AGI_C6
NSML_AGL_C7_DSTA	Address of destination VOB in AGI_C7
NSML_AGL_C8_DSTA	Address of destination VOB in AGI_C8
NSML_AGL_C9_DSTA	Address of destination VOB in AGI_C9

FIG. 69

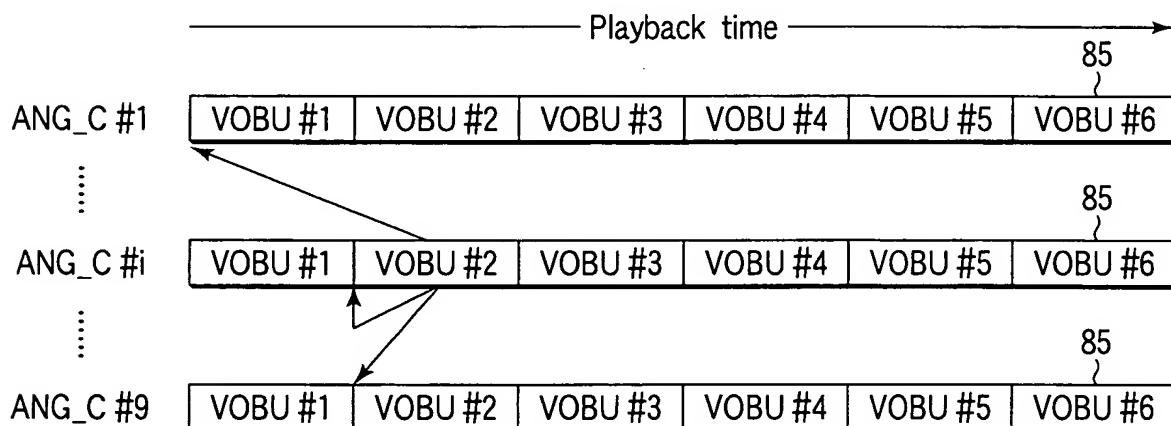


FIG. 70

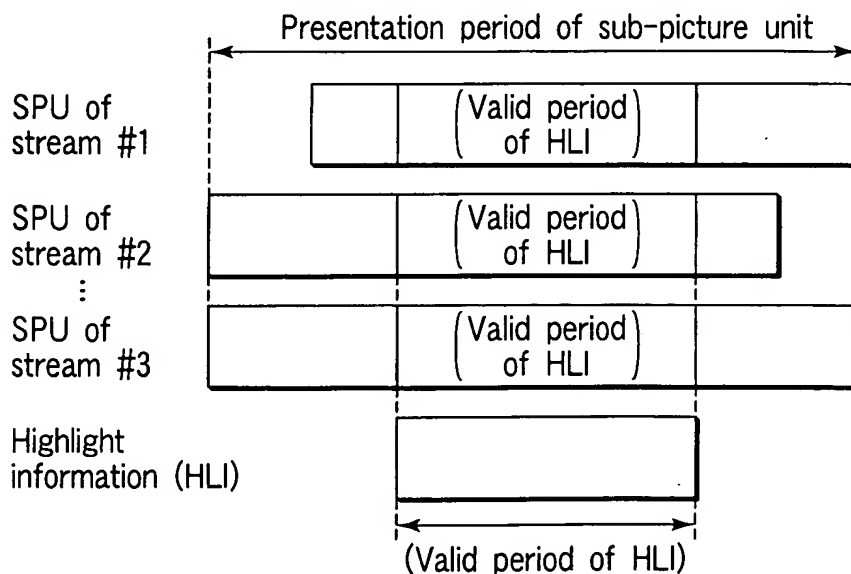


FIG. 71

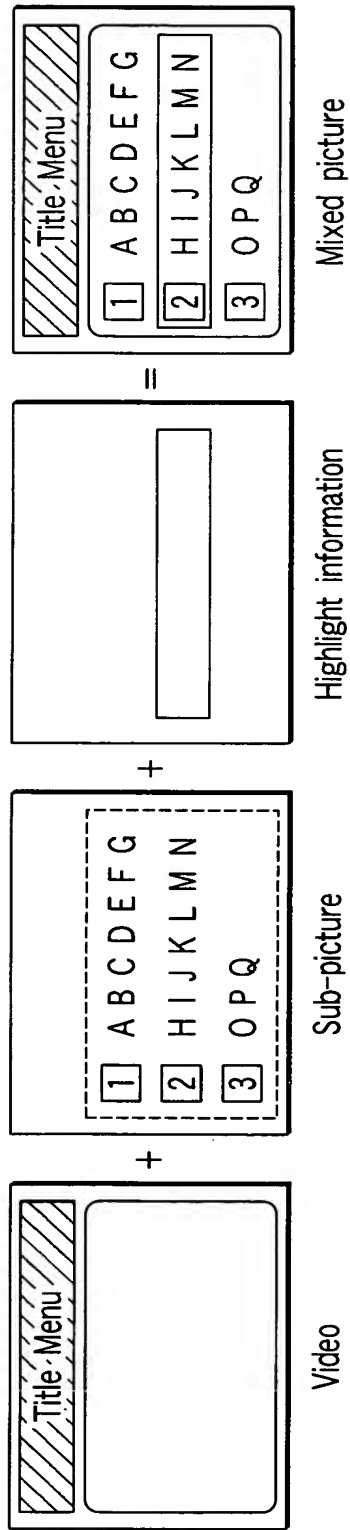


FIG. 72

HLI

	Contents	Number of bytes
HL_GI	Highlight general information	22
BTN_COLIT	Button color information table	32X3
BTNIT	Button information table	18X36

FIG. 73

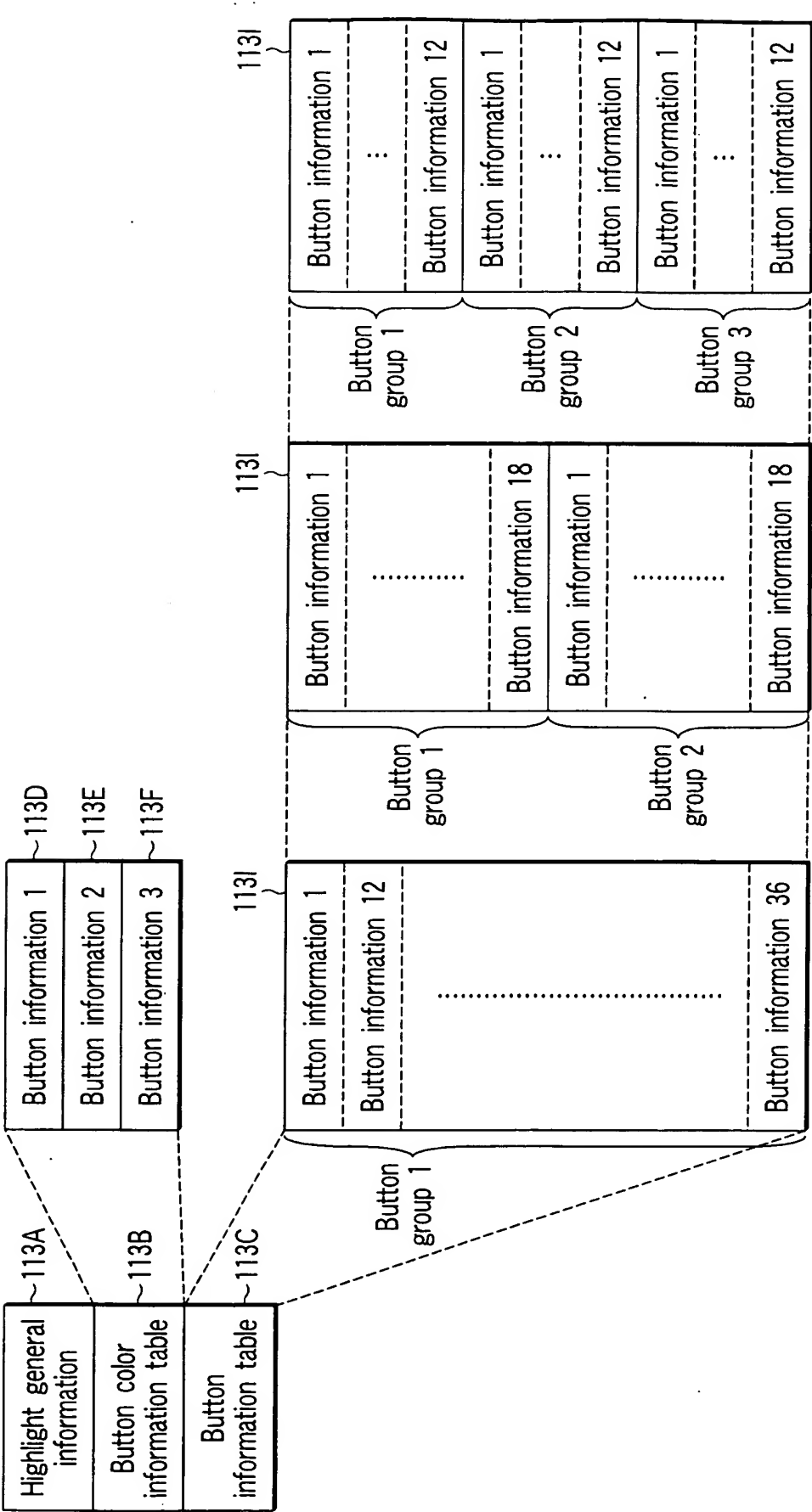


FIG. 74

HL_GI

	Contents	Number of bytes
(1) HLI_SS	Status of HLI	2 bytes
(2) HLI_S_PTM	Start PTM of HLI	4 bytes
(3) HLI_E_PTM	End PTM of HLI	4 bytes
(4) BTN_SL_E_PTM	End PTM of Button select	4 bytes
(5) BTN_MD	Button mode	2 bytes
(6) BTN_OFN	Button Offset number	1 bytes
(7) BTN_Ns	Number of Buttons	1 bytes
(8) NSL_BTN_Ns	Number of Numerical Select Buttons	1 bytes
reserved	reserved	1 bytes
(9) FOSL_BTNN	Forcedly Selected Button number	1 bytes
(10) FOAC_BTNN	Forcedly Activated Button number	1 bytes
	Total	22 bytes

FIG. 75

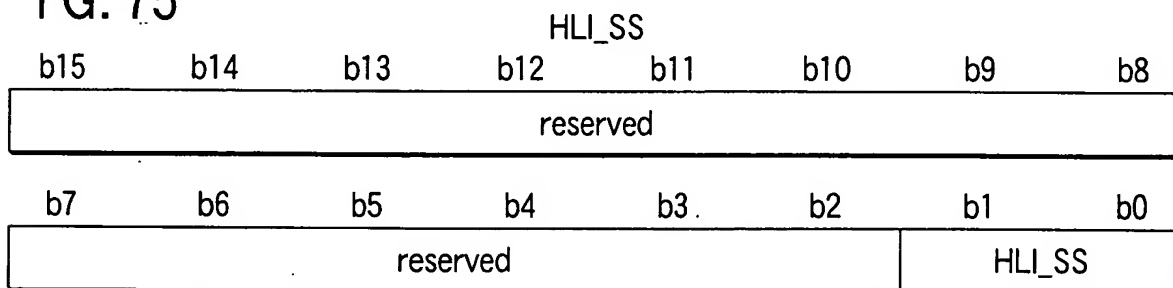
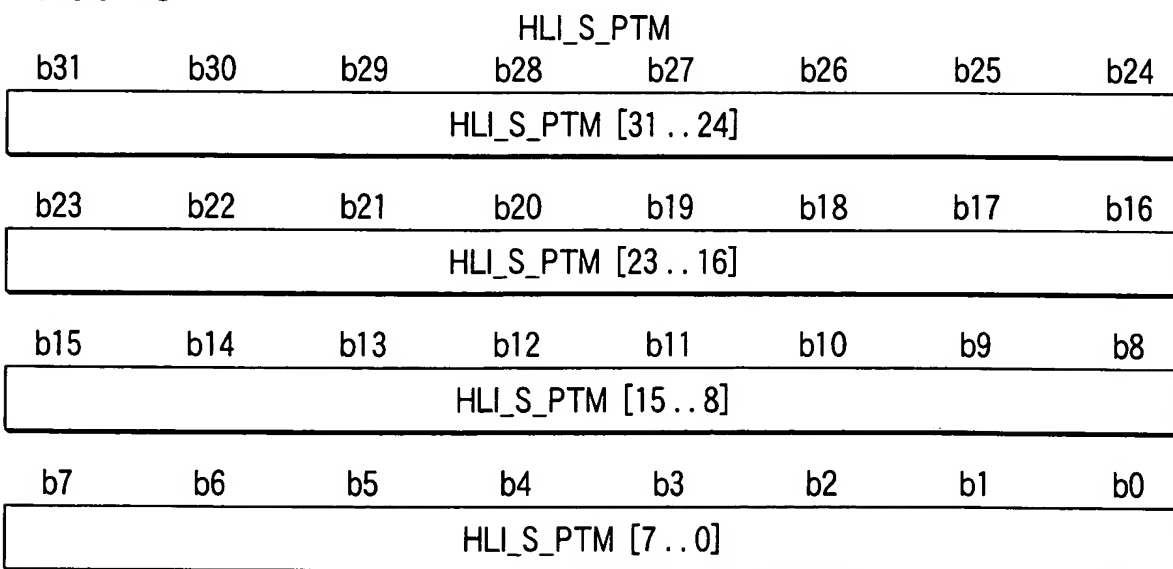
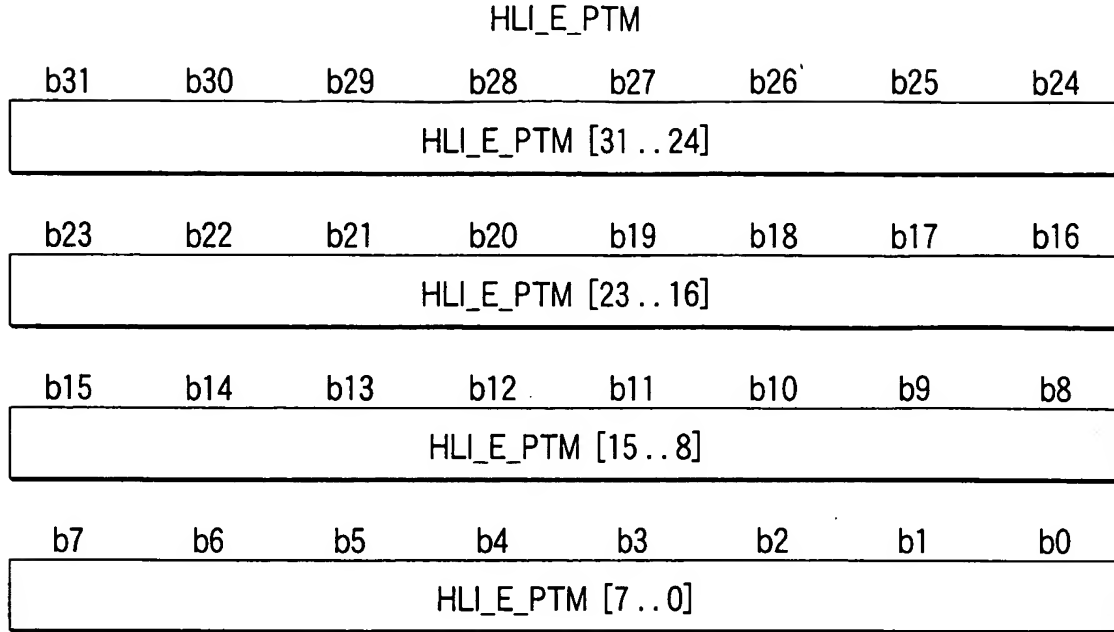


FIG. 76



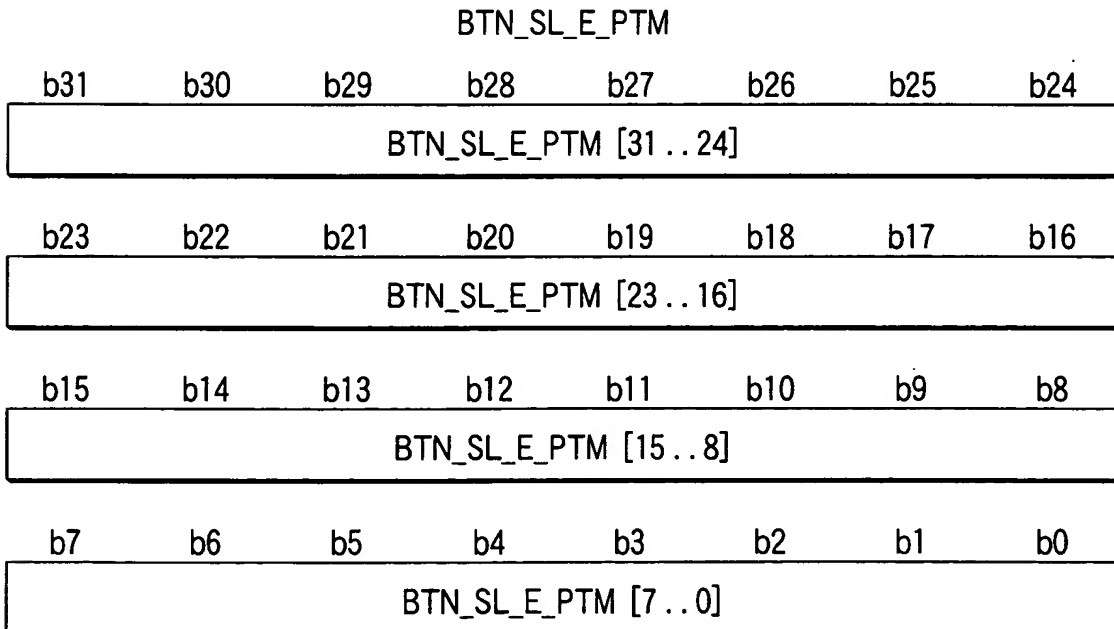
Start PTM of HLI = HLI_S_PTM [31 .. 0] / 90000 [seconds]

FIG. 77



End PTM of HLI = HLI_E_PTM [31 .. 0]/90000 [seconds]

FIG. 78



End PTM of Button select = BTN_SL_E_PTM [31 .. 0]/90000 [seconds]

FIG. 79

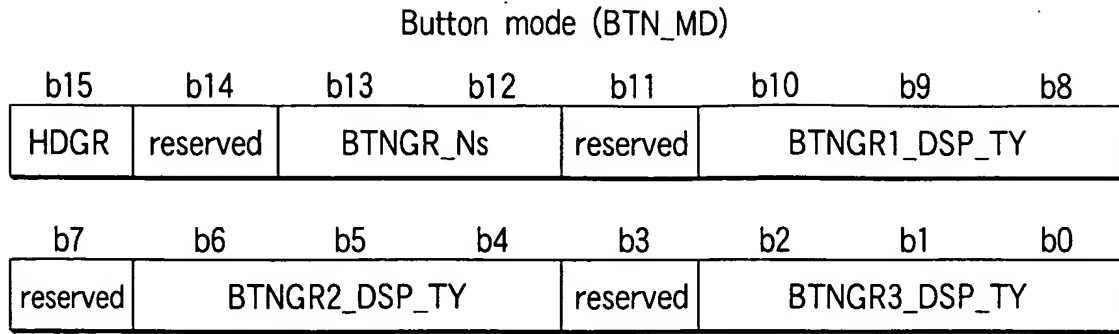


FIG. 80

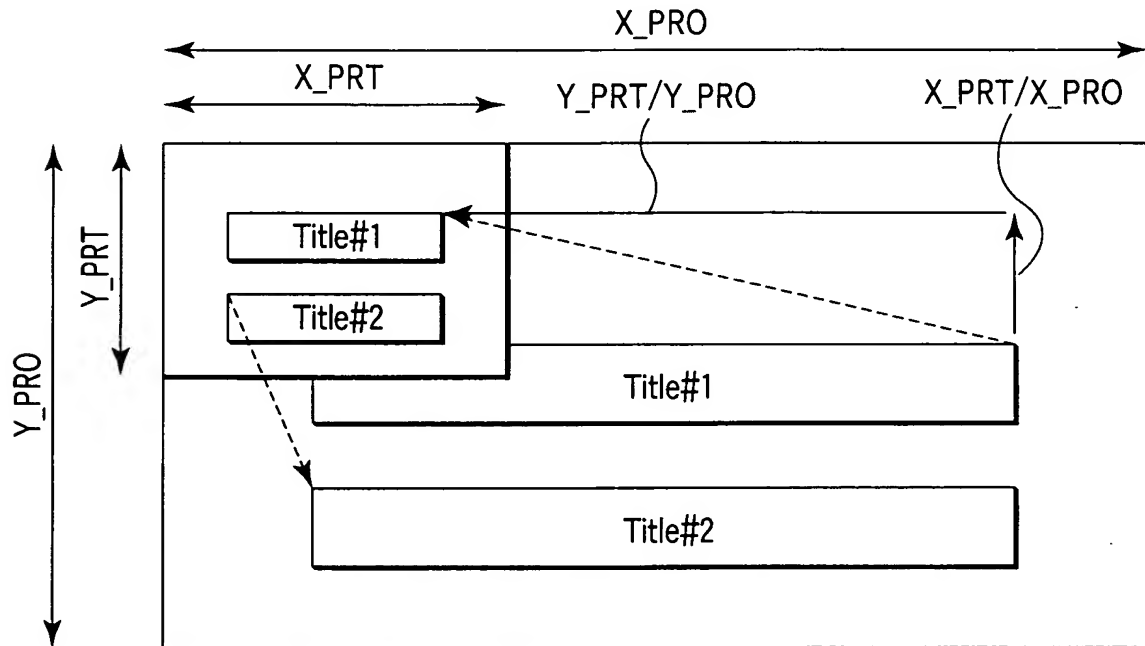


FIG. 81

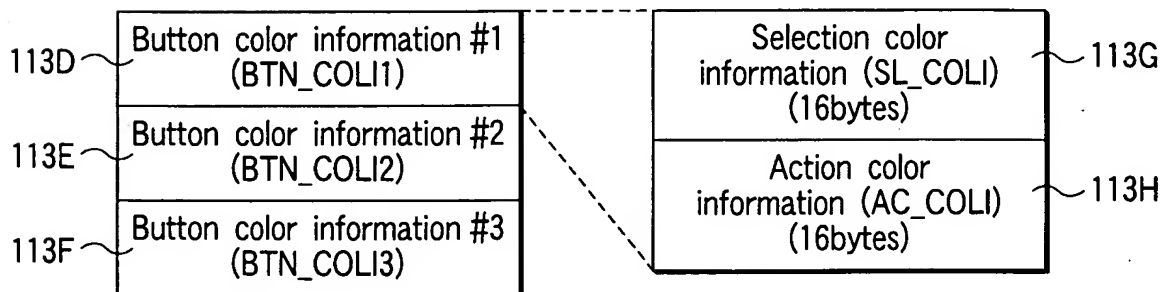


FIG. 82

Selection color information (SL_COLI)							
b127	b126	b125	b124	b123	b122	b121	b120
Selection contrast of pixel 16				Selection color code of pixel 16			
b119	b118	b117	b116	b115	b114	b113	b112
Selection contrast of pixel 15				Selection color code of pixel 15			
b111	b110	b109	b108	b107	b106	b105	b104
Selection contrast of pixel 14				Selection color code of pixel 14			
b103	b102	b101	b100	b99	b98	b97	b96
Selection contrast of pixel 13				Selection color code of pixel 13			
b95	b94	b93	b92	b91	b90	b89	b88
Selection contrast of pixel 12				Selection color code of pixel 12			
b87	b86	b85	b84	b83	b82	b81	b80
Selection contrast of pixel 11				Selection color code of pixel 11			
b79	b78	b77	b76	b75	b74	b73	b72
Selection contrast of pixel 10				Selection color code of pixel 10			
b71	b70	b69	b68	b67	b66	b65	b64
Selection contrast of pixel 9				Selection color code of pixel 9			
b63	b62	b61	b60	b59	b58	b57	b56
Selection contrast of pixel 8				Selection color code of pixel 8			
b55	b54	b53	b52	b51	b50	b49	b48
Selection contrast of pixel 7				Selection color code of pixel 7			
b47	b46	b45	b44	b43	b42	b41	b40
Selection contrast of pixel 6				Selection color code of pixel 6			
b39	b38	b37	b36	b35	b34	b33	b32
Selection contrast of pixel 5				Selection color code of pixel 5			
b31	b30	b29	b28	b27	b26	b25	b24
Selection contrast of pixel 4				Selection color code of pixel 4			
b23	b22	b21	b20	b19	b18	b17	b16
Selection contrast of pixel 3				Selection color code of pixel 3			
b15	b14	b13	b12	b11	b10	b9	b8
Selection contrast of pixel 2				Selection color code of pixel 2			
b7	b6	b5	b4	b3	b2	b1	b0
Selection contrast of pixel 1				Selection color code of pixel 1			

FIG. 83

Action color information (AC_COLI)							
b127	b126	b125	b124	b123	b122	b121	b120
Action contrast of pixel 16				Action color code of pixel 16			
b119	b118	b117	b116	b115	b114	b113	b112
Action contrast of pixel 15				Action color code of pixel 15			
b111	b110	b109	b108	b107	b106	b105	b104
Action contrast of pixel 14				Action color code of pixel 14			
b103	b102	b101	b100	b99	b98	b97	b96
Action contrast of pixel 13				Action color code of pixel 13			
b95	b94	b93	b92	b91	b90	b89	b88
Action contrast of pixel 12				Action color code of pixel 12			
b87	b86	b85	b84	b83	b82	b81	b80
Action contrast of pixel 11				Action color code of pixel 11			
b79	b78	b77	b76	b75	b74	b73	b72
Action contrast of pixel 10				Action color code of pixel 10			
b71	b70	b69	b68	b67	b66	b65	b64
Action contrast of pixel 9				Action color code of pixel 9			
b63	b62	b61	b60	b59	b58	b57	b56
Action contrast of pixel 8				Action color code of pixel 8			
b55	b54	b53	b52	b51	b50	b49	b48
Action contrast of pixel 7				Action color code of pixel 7			
b47	b46	b45	b44	b43	b42	b41	b40
Action contrast of pixel 6				Action color code of pixel 6			
b39	b38	b37	b36	b35	b34	b33	b32
Action contrast of pixel 5				Action color code of pixel 5			
b31	b30	b29	b28	b27	b26	b25	b24
Action contrast of pixel 4				Action color code of pixel 4			
b23	b22	b21	b20	b19	b18	b17	b16
Action contrast of pixel 3				Action color code of pixel 3			
b15	b14	b13	b12	b11	b10	b9	b8
Action contrast of pixel 2				Action color code of pixel 2			
b7	b6	b5	b4	b3	b2	b1	b0
Action contrast of pixel 1				Action color code of pixel 1			

FIG. 84

Configuration of button information table of each group

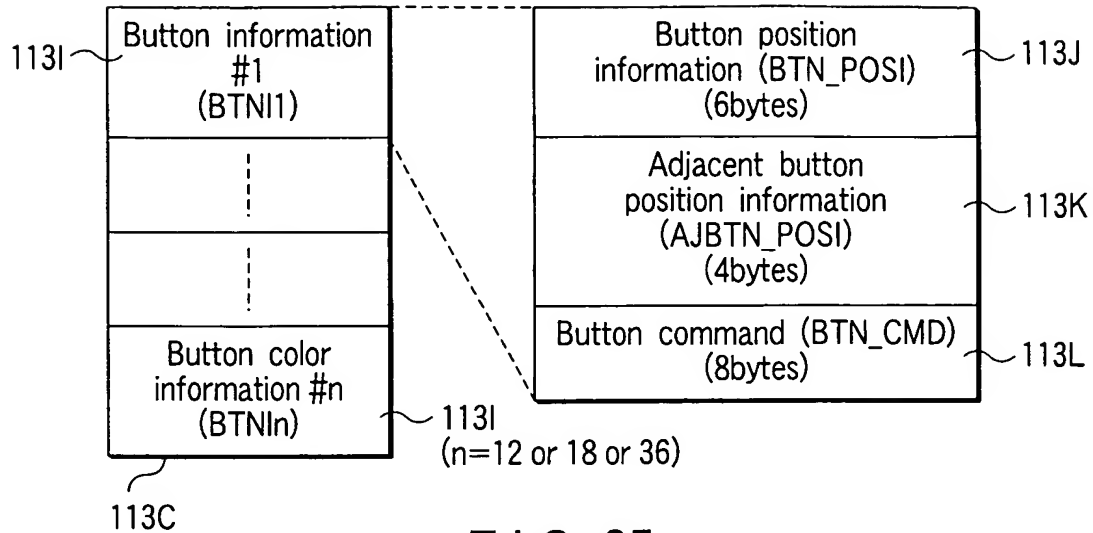


FIG. 85

Button position information (BTN_POSI)

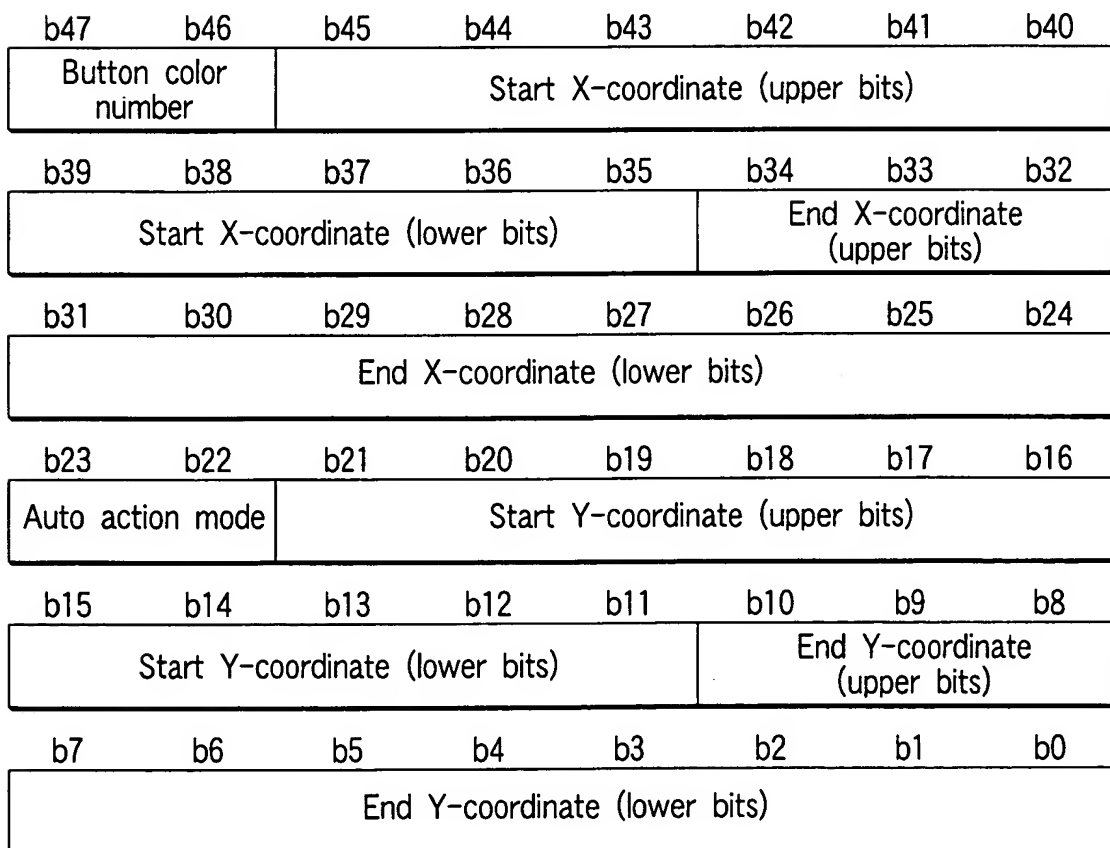


FIG. 86

	TV system				
	525/60	625/50	HDTV-1280	HDTV-1440	HDTV-1920
X-coordinate value	0~719	0~719	0~1279	0~1439	0~1919
Y-coordinate value	2~479	2~574	2~719	2~1079	2~1079

FIG. 87

Adjacent button position information (AJBTN_POSI)

b31	b30	b29	b28	b27	b26	b25	b24
reserved			Upper button number				
b23	b22	b21	b20	b19	b18	b17	b16
reserved			Lower button number				
b15	b14	b13	b12	b11	b10	b9	b8
reserved			Left button number				
b7	b6	b5	b4	b3	b2	b1	b0
reserved			Right button number				

FIG. 88

RECI		(Description order)
	Contents	Number of bytes
ISRC_V	ISRC of video data in Video stream	10 bytes
ISRC_A0	ISRC of audio data in Decoding Audio stream #0	10 bytes
ISRC_A1	ISRC of audio data in Decoding Audio stream #1	10 bytes
ISRC_A2	ISRC of audio data in Decoding Audio stream #2	10 bytes
ISRC_A3	ISRC of audio data in Decoding Audio stream #3	10 bytes
ISRC_A4	ISRC of audio data in Decoding Audio stream #4	10 bytes
ISRC_A5	ISRC of audio data in Decoding Audio stream #5	10 bytes
ISRC_A6	ISRC of audio data in Decoding Audio stream #6	10 bytes
ISRC_A7	ISRC of audio data in Decoding Audio stream #7	10 bytes
ISRC_SP0	ISRC of SP data in Decoding SP stream #0,#8,#16 or #24	10 bytes
ISRC_SP1	ISRC of SP data in Decoding SP stream #1,#9,#17 or #25	10 bytes
ISRC_SP2	ISRC of SP data in Decoding SP stream #2,#10,#18 or #26	10 bytes
ISRC_SP3	ISRC of SP data in Decoding SP stream #3,#11,#19 or #27	10 bytes
ISRC_SP4	ISRC of SP data in Decoding SP stream #4,#12,#20 or #28	10 bytes
ISRC_SP5	ISRC of SP data in Decoding SP stream #5,#13,#21 or #29	10 bytes
ISRC_SP6	ISRC of SP data in Decoding SP stream #6,#14,#22 or #30	10 bytes
ISRC_SP7	ISRC of SP data in Decoding SP stream #7,#15,#23 or #31	10 bytes
ISRC_SP_SEL	Selected SP stream group for ISRC	1 byte
reserved	reserved	18 bytes
	Total	117 bytes

FIG. 89

DSI	(Description order)	
	Contents	Number of bytes
DSI_GI	DSI general information	32 bytes
SML_PBI	Seamless playback information	148 bytes
SML_AGLI	Angle information for seamless	54 bytes
VOBU_SRI	VOBU search information	168 bytes
SYNCl	Synchronous information	144 bytes
reserved	reserved	471 bytes
	Total	1017 bytes

FIG. 90

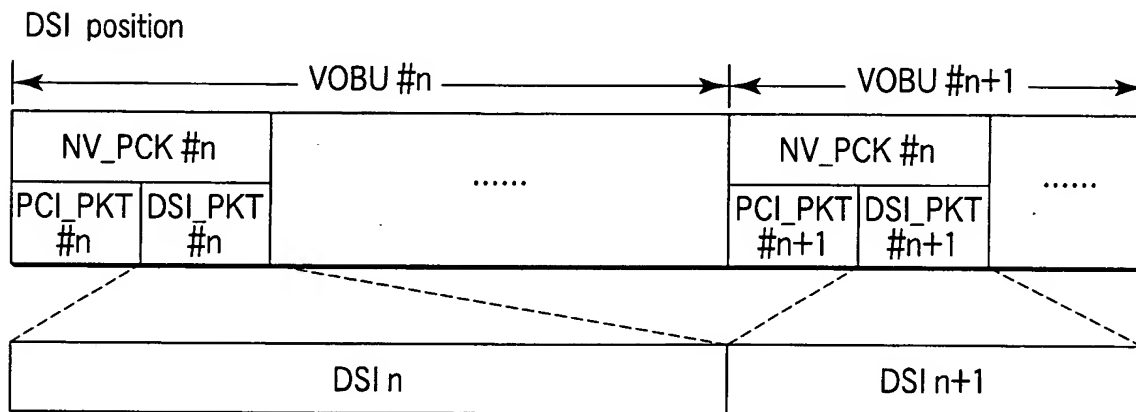


FIG. 91

DSI_GI	Contents
NV_PCK_SCR	SCR of NV pack
NV_PCK_LBN	LBN of NV pack
VOBU_EA	End address of VOB
VOBU_IP_EA	End address of the first reference picture
VOBU_VOB_IDN	VOB ID number of the VOB
VOBU_C_IDN	Cell ID number of the VOB

FIG. 92

CELL_ADP_ID

b7	b6	b5	b4	b3	b2	b1	b0
VOB_VERN	reserved					Adaptive disk type	

FIG. 93

SML_AGLI

Contents	
SML_AGL-C1_DSTA	Destination address of AGL_C #1
SML_AGL-C2_DSTA	Destination address of AGL_C #2
SML_AGL-C3_DSTA	Destination address of AGL_C #3
SML_AGL-C4_DSTA	Destination address of AGL_C #4
SML_AGL-C5_DSTA	Destination address of AGL_C #5
SML_AGL-C6_DSTA	Destination address of AGL_C #6
SML_AGL-C7_DSTA	Destination address of AGL_C #7
SML_AGL-C8_DSTA	Destination address of AGL_C #8
SML_AGL-C9_DSTA	Destination address of AGL_C #9

FIG. 94

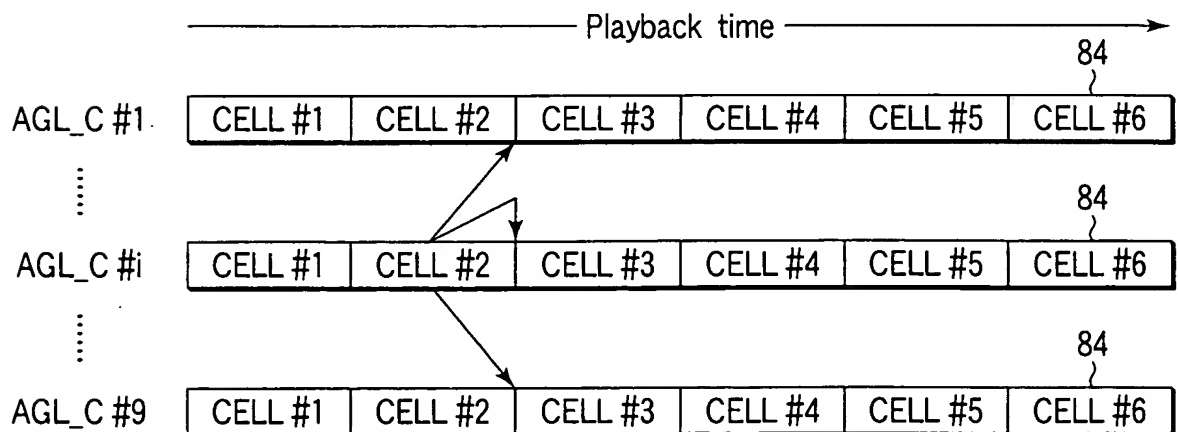


FIG. 95

VOBU_SRI

	Contents
FWDI 240	+ 240 VOBUs start address and Video exist flag
FWDI 120	+ 120 VOBUs start address and Video exist flag
FWDI 60	+ 60 VOBUs start address and Video exist flag
FWDI 20	+ 20 VOBUs start address and Video exist flag
FWDI 15	+ 15 VOBUs start address and Video exist flag
FWDI 14	+ 14 VOBUs start address and Video exist flag
FWDI 13	+ 13 VOBUs start address and Video exist flag
FWDI 12	+ 12 VOBUs start address and Video exist flag
FWDI 11	+ 11 VOBUs start address and Video exist flag
FWDI 10	+ 10 VOBUs start address and Video exist flag
FWDI 9	+ 9 VOBUs start address and Video exist flag
FWDI 8	+ 8 VOBUs start address and Video exist flag
FWDI 7	+ 7 VOBUs start address and Video exist flag
FWDI 6	+ 6 VOBUs start address and Video exist flag
FWDI 5	+ 5 VOBUs start address and Video exist flag
FWDI 4	+ 4 VOBUs start address and Video exist flag
FWDI 3	+ 3 VOBUs start address and Video exist flag
FWDI 2	+ 2 VOBUs start address and Video exist flag
FWDI 1	+ 1 VOBUs start address and Video exist flag
BWDI Next	Next VOBUs start address and Video exist flag
BWDI Prev	Previous VOBUs start address and Video exist flag
BWDI 1	- 1 VOBUs start address and Video exist flag
BWDI 2	- 2 VOBUs start address and Video exist flag
BWDI 3	- 3 VOBUs start address and Video exist flag
BWDI 4	- 4 VOBUs start address and Video exist flag
BWDI 5	- 5 VOBUs start address and Video exist flag
BWDI 6	- 6 VOBUs start address and Video exist flag
BWDI 7	- 7 VOBUs start address and Video exist flag
BWDI 8	- 8 VOBUs start address and Video exist flag
BWDI 9	- 9 VOBUs start address and Video exist flag
BWDI 10	- 10 VOBUs start address and Video exist flag
BWDI 11	- 11 VOBUs start address and Video exist flag
BWDI 12	- 12 VOBUs start address and Video exist flag
BWDI 13	- 13 VOBUs start address and Video exist flag
BWDI 14	- 14 VOBUs start address and Video exist flag
BWDI 15	- 15 VOBUs start address and Video exist flag
BWDI 20	- 20 VOBUs start address and Video exist flag
BWDI 60	- 60 VOBUs start address and Video exist flag
BWDI 120	- 120 VOBUs start address and Video exist flag
BWDI 240	- 240 VOBUs start address and Video exist flag

FIG. 96

Forward address (FWDIn)

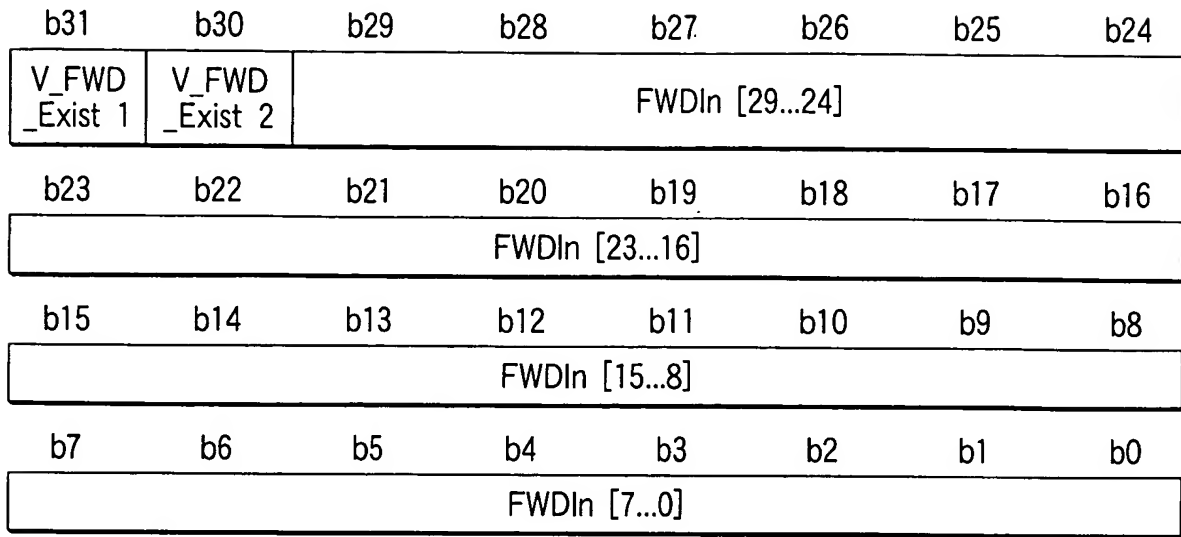


FIG. 97

Backward address (BWDIn)

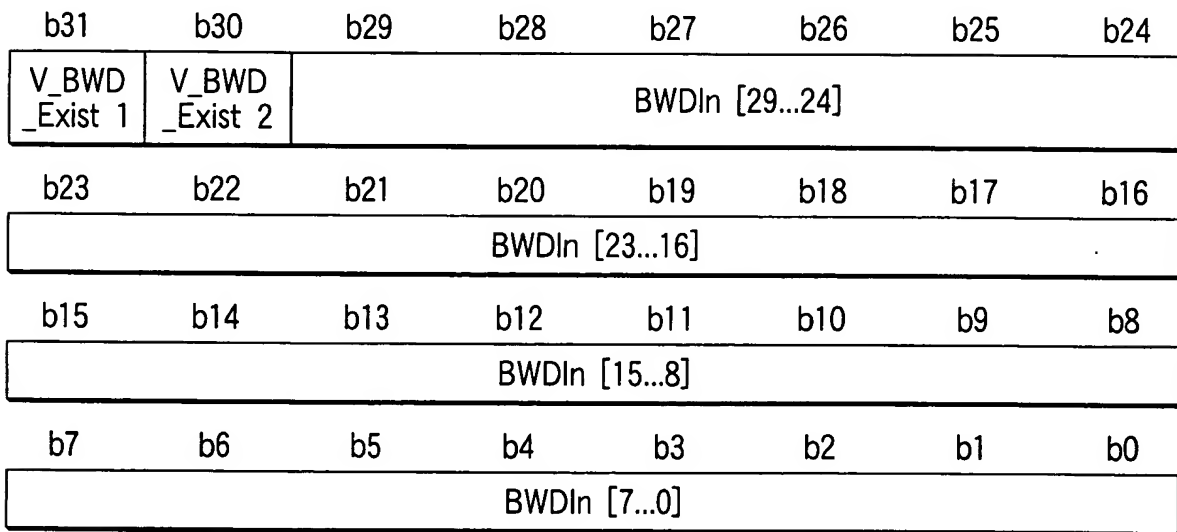


FIG. 98

SYNCl

Contents	
A_SYNCA 0 to 7	Target audio pack (A_PCK) address
SP_SYNCA 0 to 31	VOBU start address for target sub-picture pack (SP_PCK)

FIG. 99

SPRM (14) : Video player configuration (P_CFG)

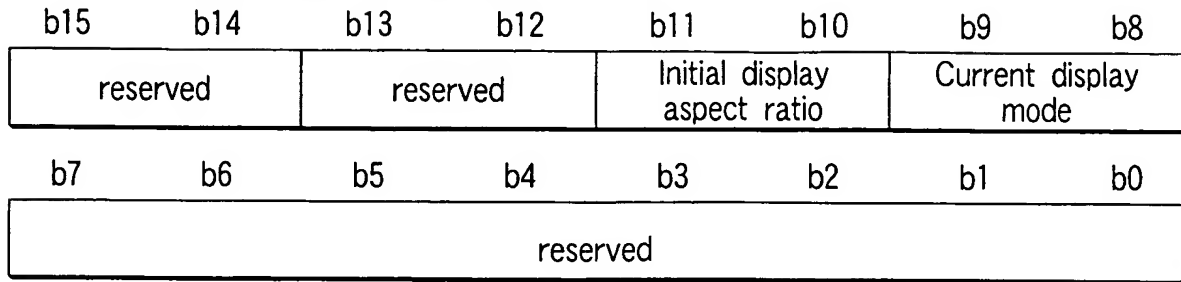


FIG. 100

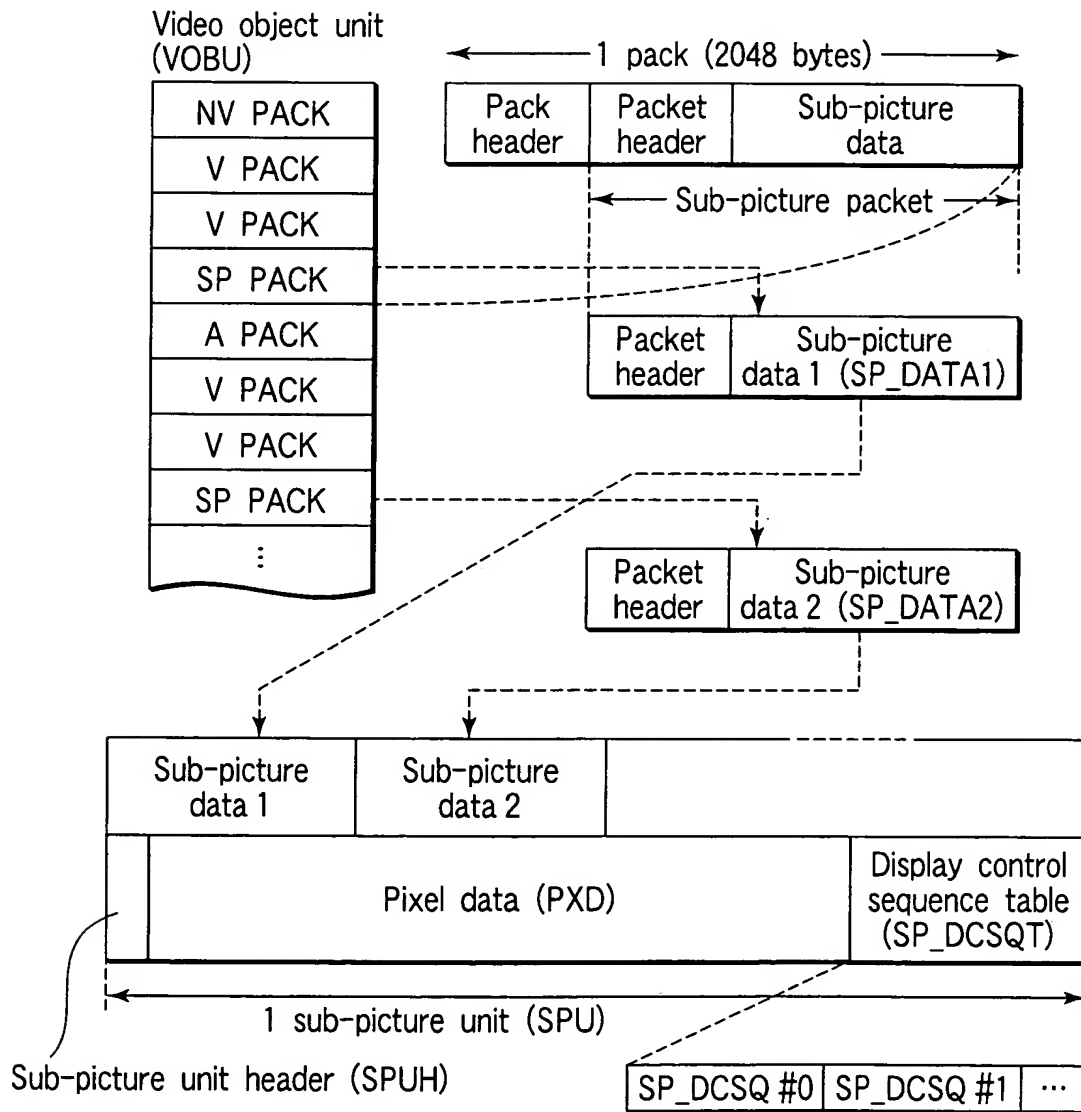


FIG. 102

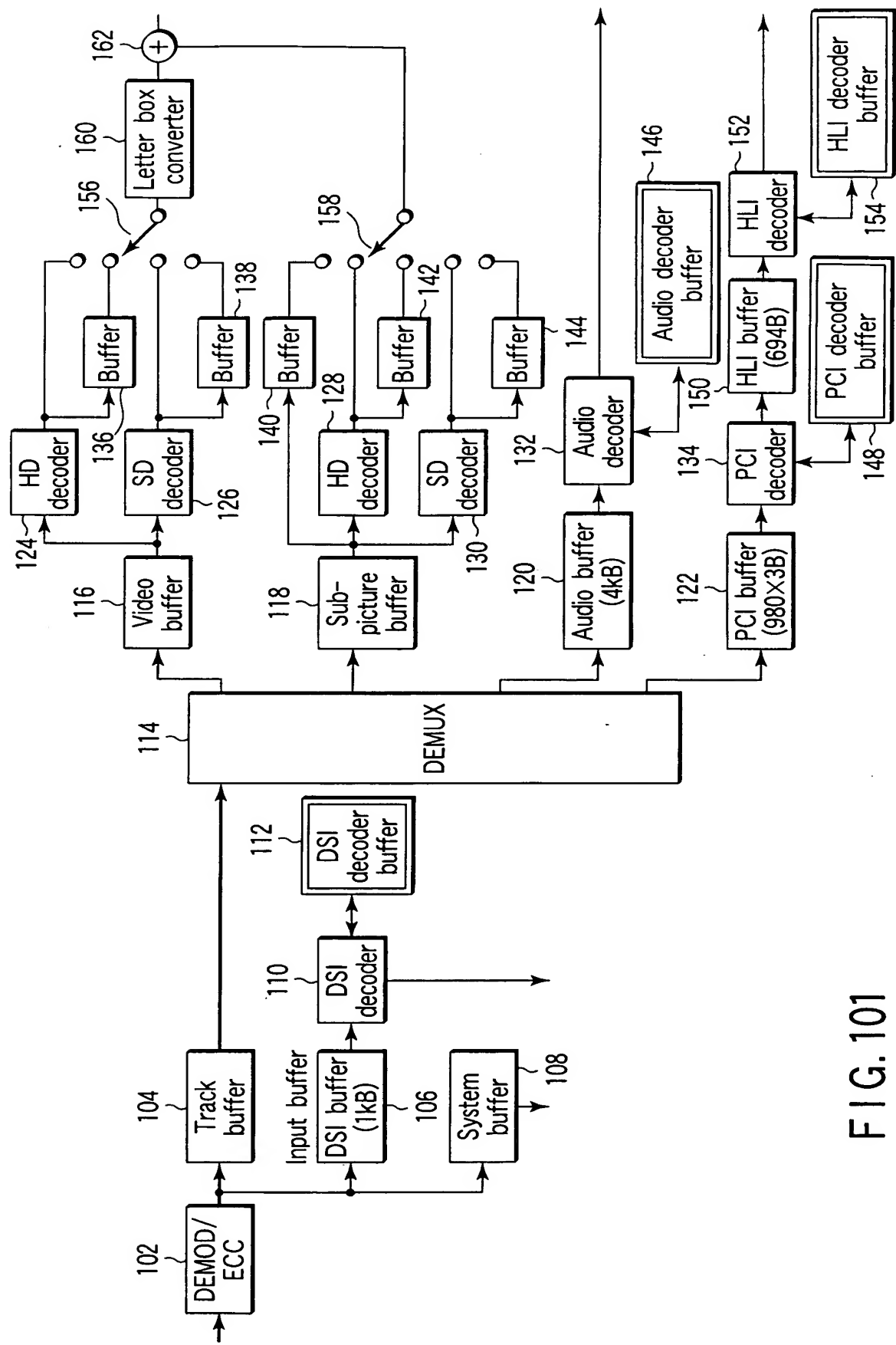


FIG. 101

Sub-picture unit (SPU) and sub-picture pack (SP_PCK)

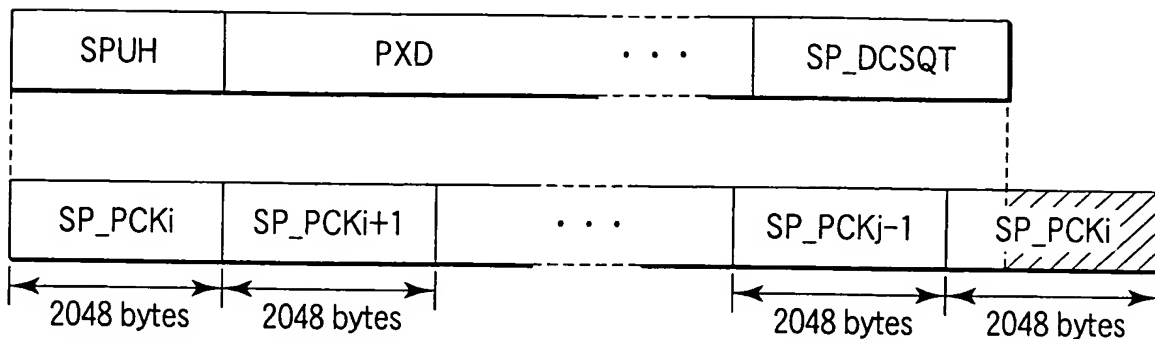


FIG. 103

Sub-picture unit header (SPUH)

		Description order
	Contents	Number of bytes
(1)SPU_SZ	Size of sub-picture unit	4 bytes
(2)SP_DCSQT_SA	Start address of display control sequence table	4 bytes
(3)PXD_W	Width of pixel data	4 bytes
(4)PXD_H	Height of pixel data	4 bytes
(5)SP_CAT	Sub-picture category	1 bytes
reserved	reserved	1 bytes
	Total	18 bytes

FIG. 104

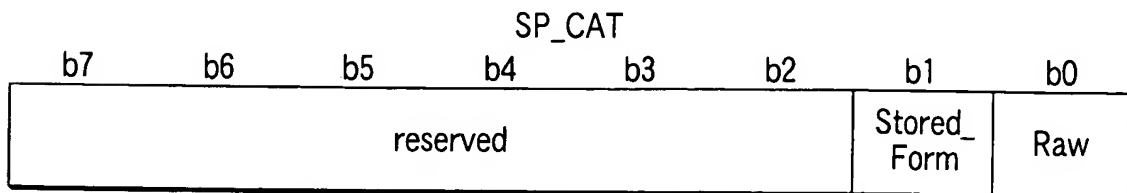


FIG. 105

Allocation of pixel data

Pixel name	Pixel data
Pixel 1	0000
Pixel 2	0001
Pixel 3	0010
Pixel 4	0011
Pixel 5	0100
Pixel 6	0101
Pixel 7	0110
Pixel 8	0111
Pixel 9	1000
Pixel 10	1001
Pixel 11	1010
Pixel 12	1011
Pixel 13	1100
Pixel 14	1101
Pixel 15	1110
Pixel 16	1111

FIG. 106

Pixel data allocation example (1)

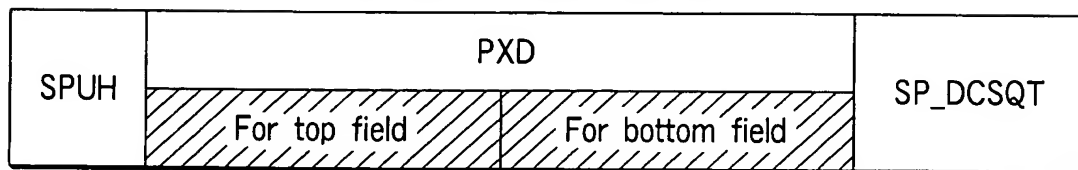


FIG. 107A

Pixel data allocation example (2)

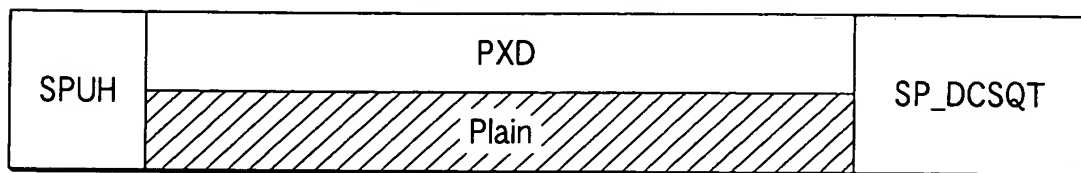
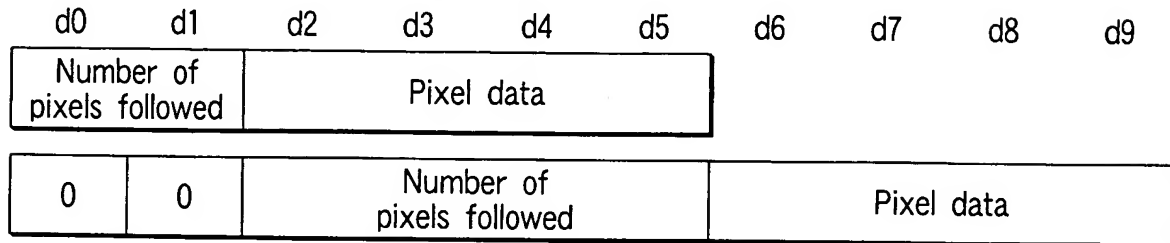


FIG. 107B



d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12
Comp	Pixel data				Ext	Counter			Counter (Ext) (When Ext=1b)			

FIG. 110A

d0	d1	d2	d3
X	X	X	X

FIG. 110B

d0	d1	d2	d3
Pixel Data			

FIG. 110C

d0	d1	d2	d3	d4	d5	d6	d7
Pixel Data				0	Counter		

FIG. 110D

d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11
Pixel Data				1	Counter			Counter Extension			

FIG. 110E

d0	d1	d2	d3	d4	d5	d6	d7
0	0	0	0	0	0	0	0

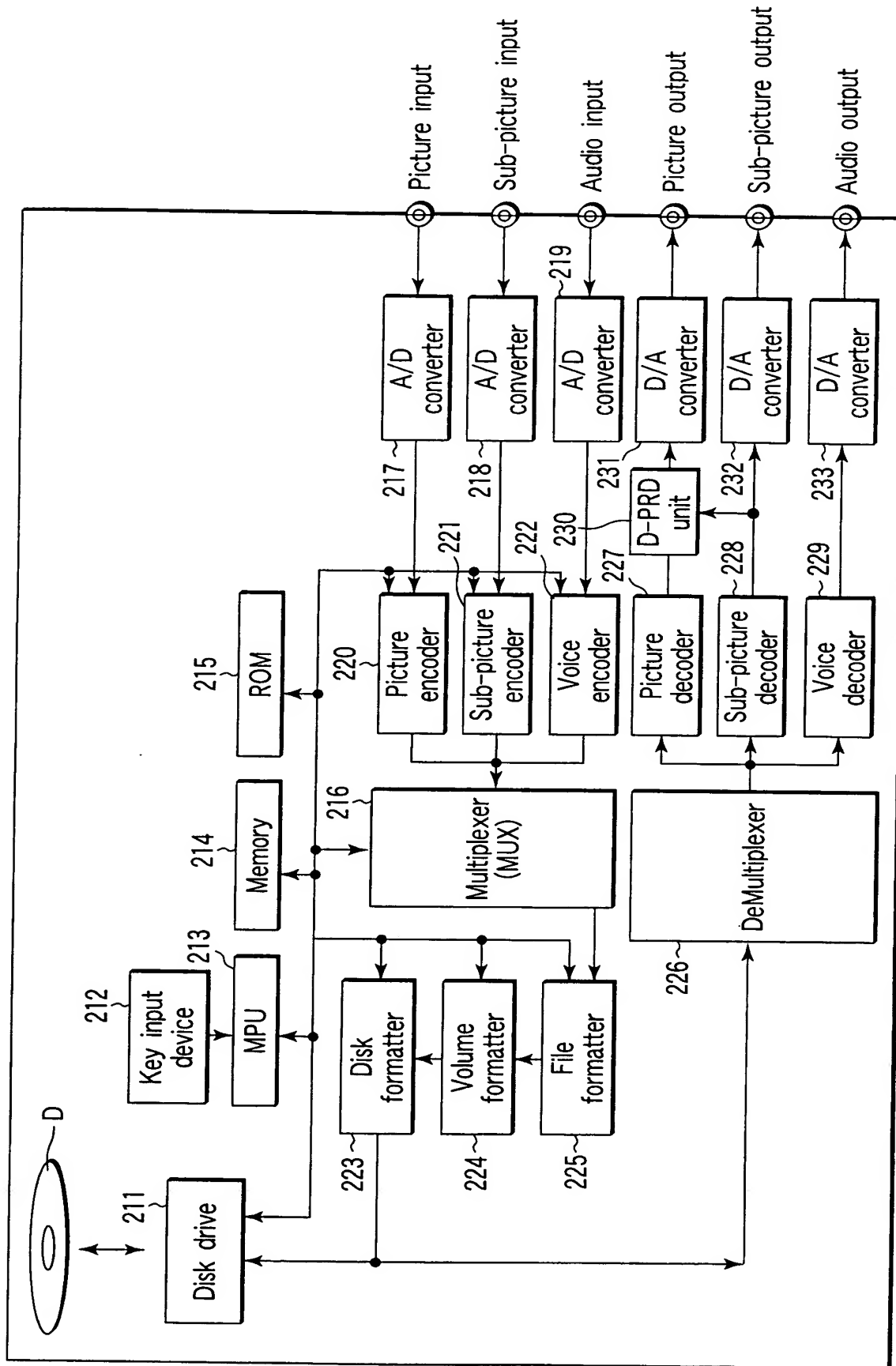


FIG. 111

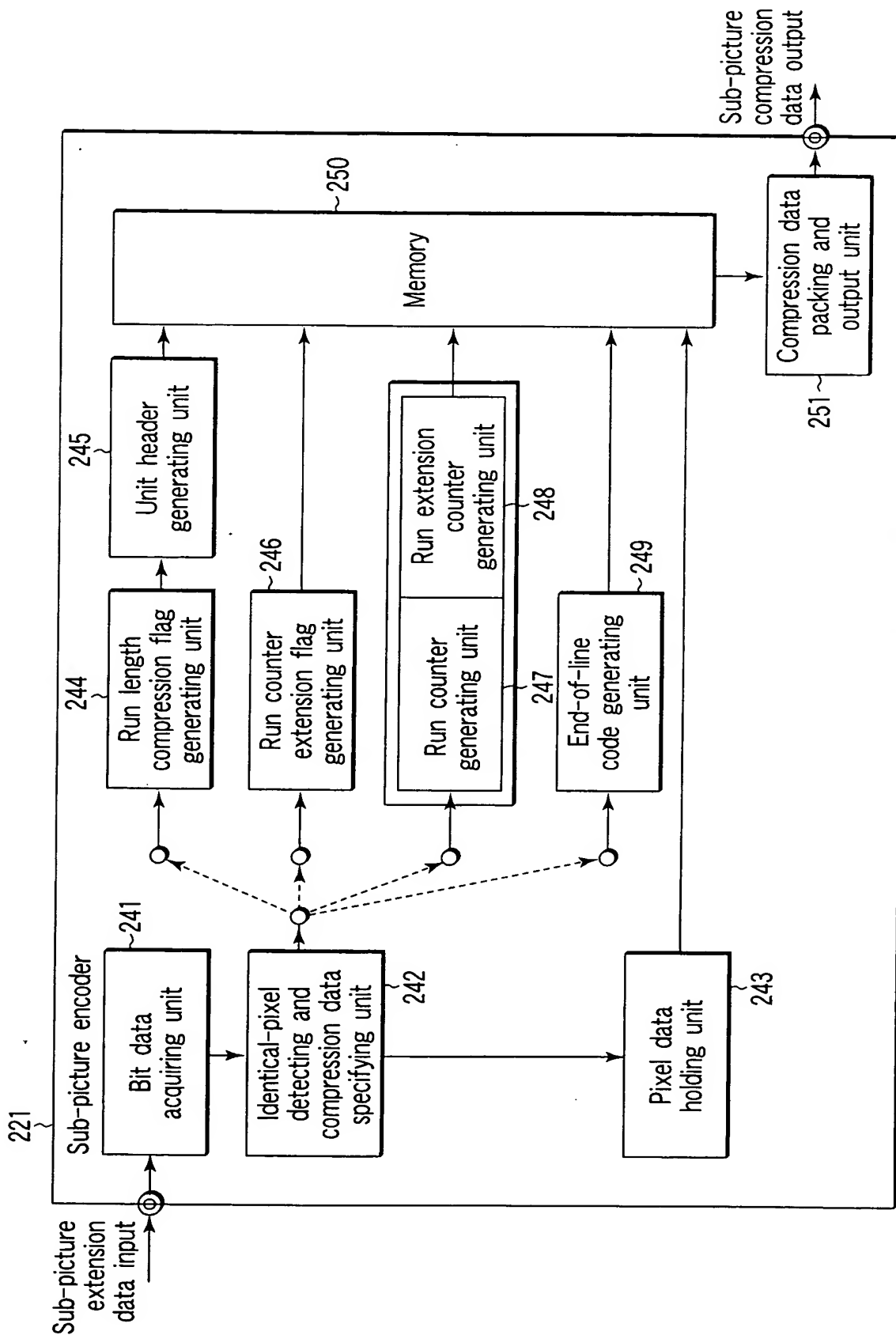


FIG. 112

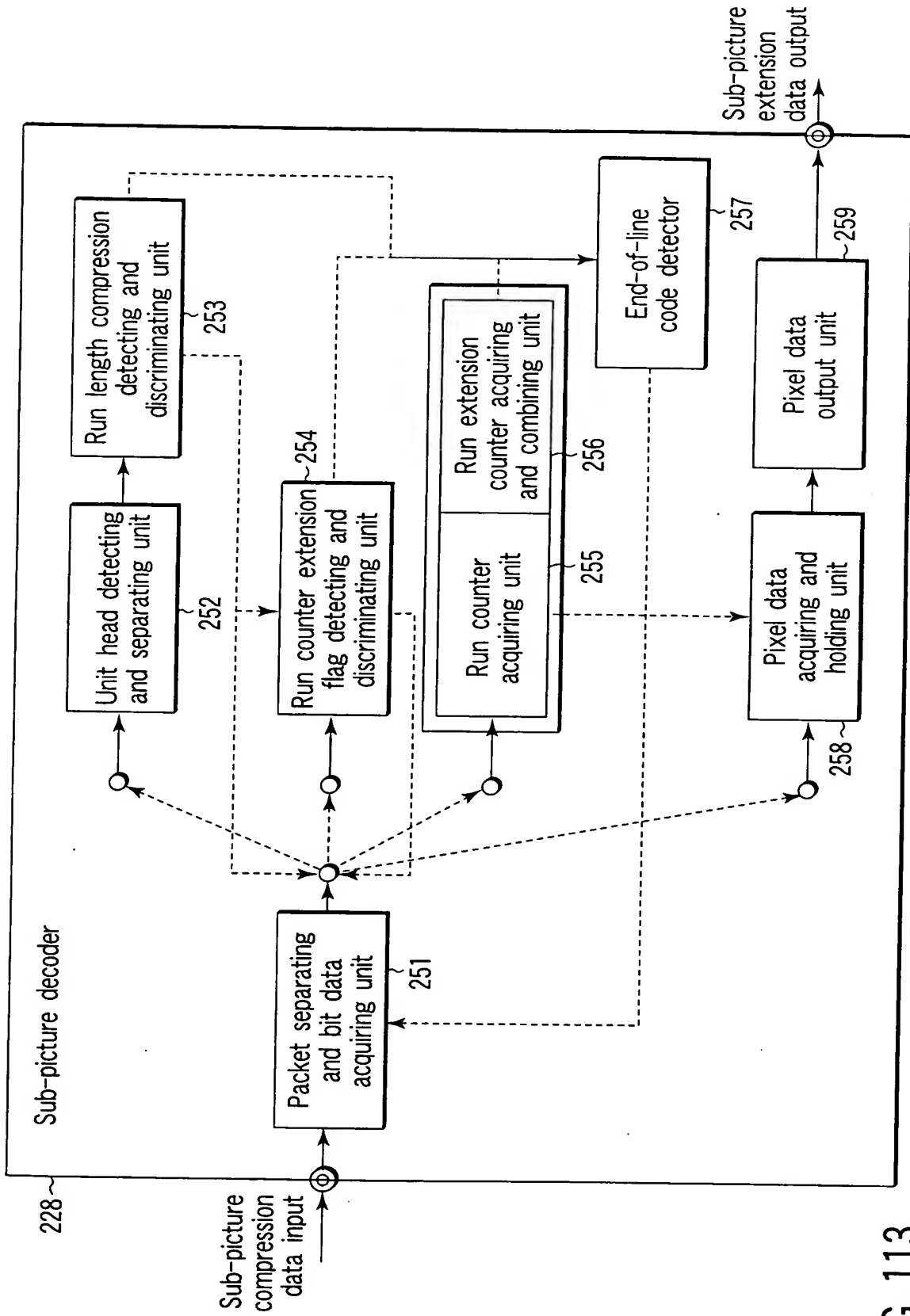


FIG. 113

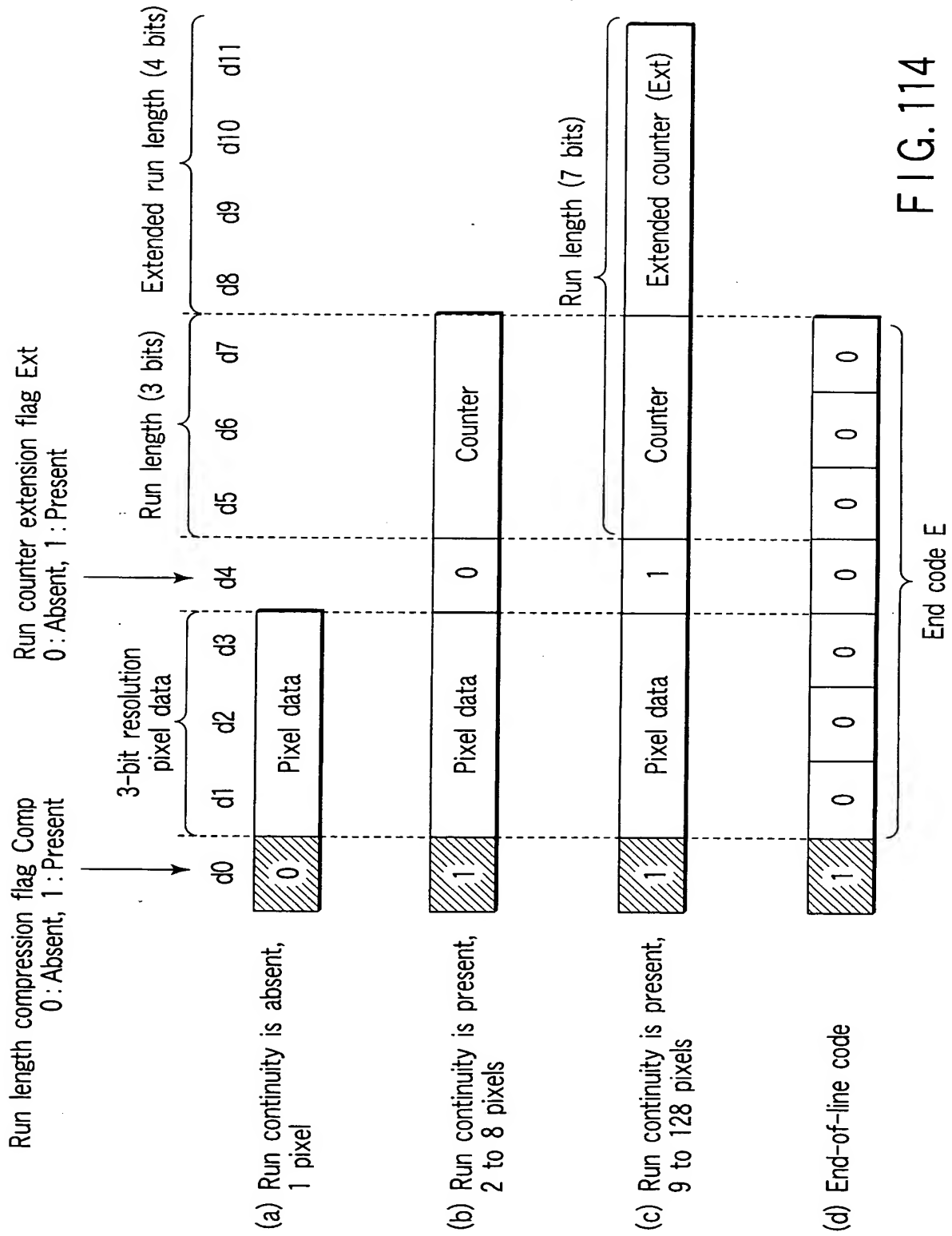


FIG. 114

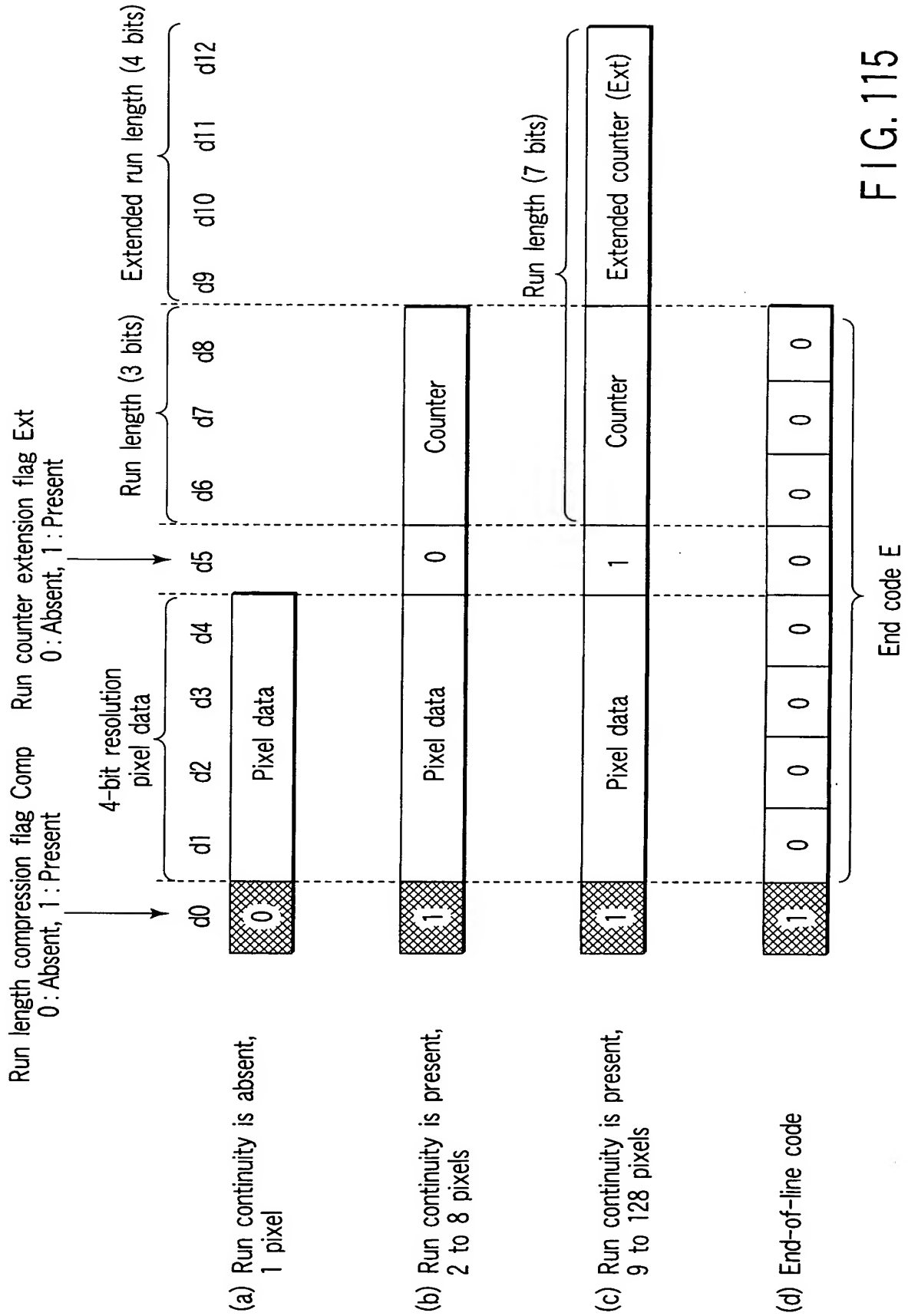
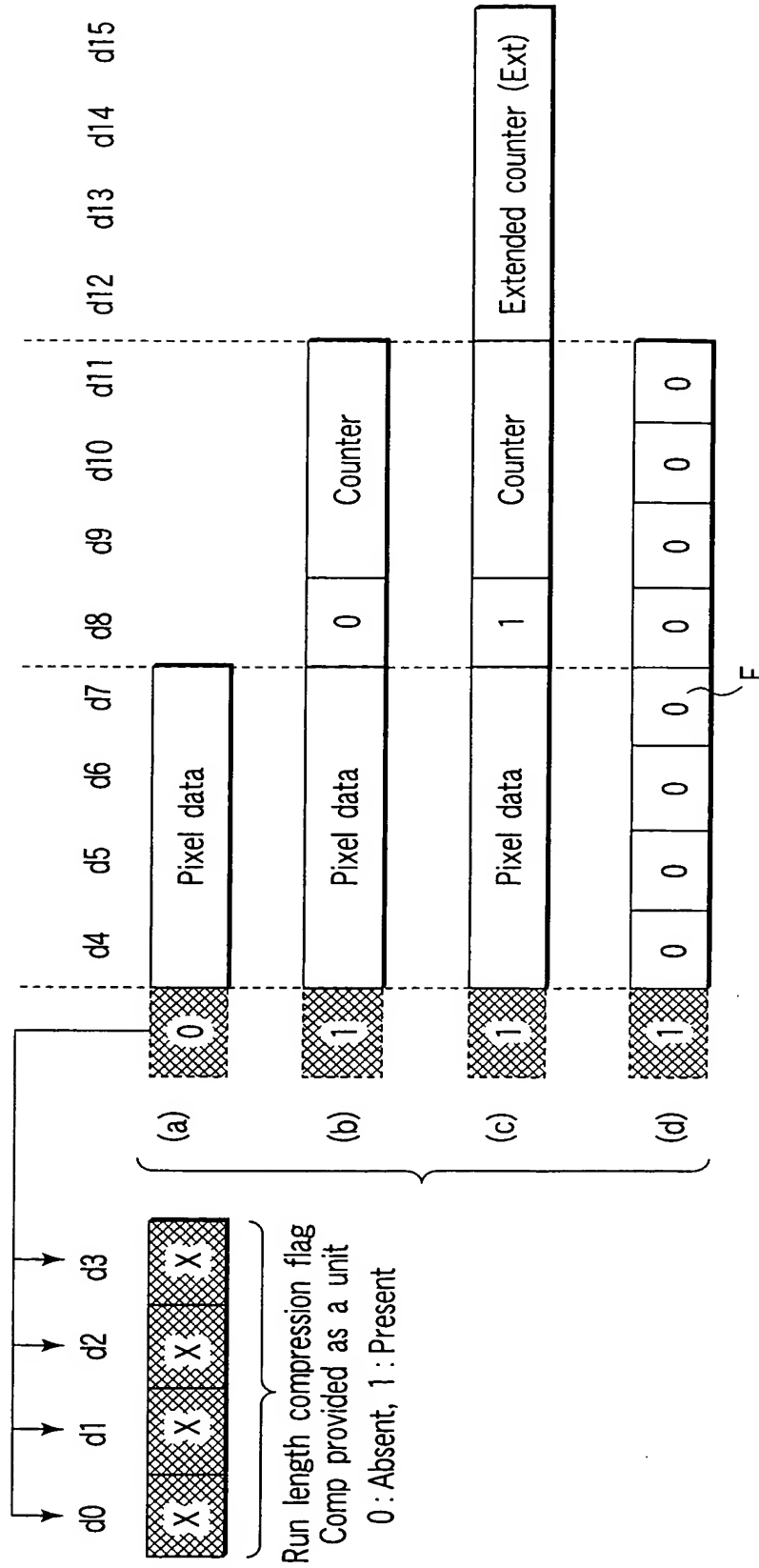


FIG. 115



※ to be provided as a unit in patterns (a) to (d)

FIG. 116

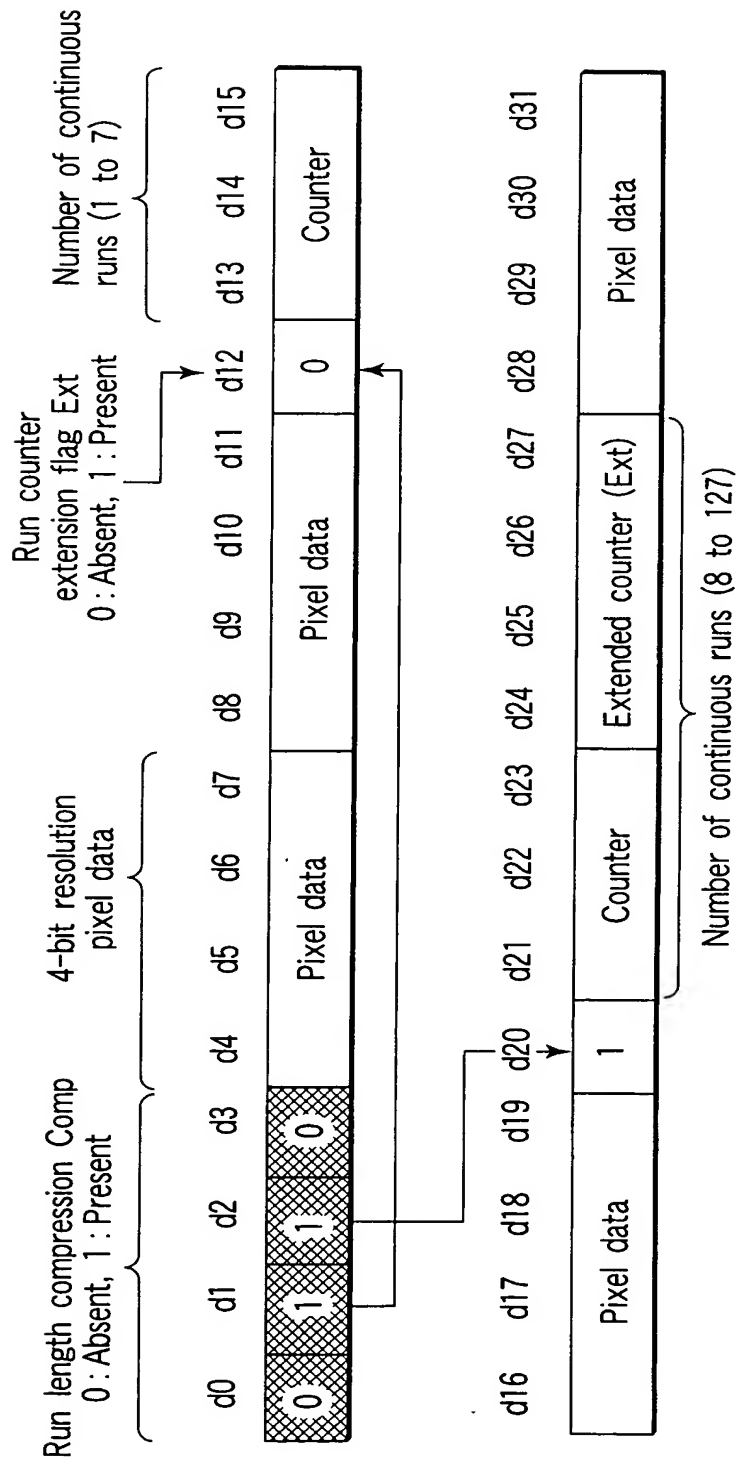


FIG. 117

In case of all non-compressions (shortest pattern): 4-pixel expression

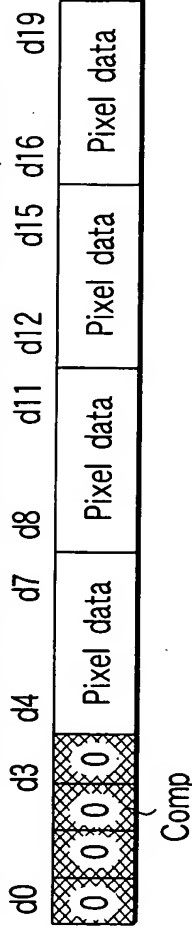
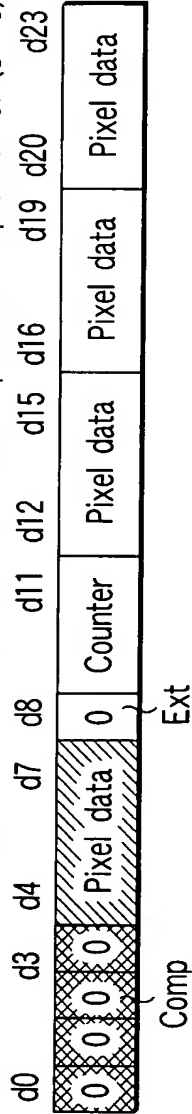


FIG. 118A

In case where compression of 8 or less run continuities is provided : Expression of $(8 + 3)$ pixels or less



Pixel data
subjected to
run length
compression

FIG. 118B

In case where compression of 9 to 128 run continuities is provided: Expression of $(128 + 3)$ pixels or less

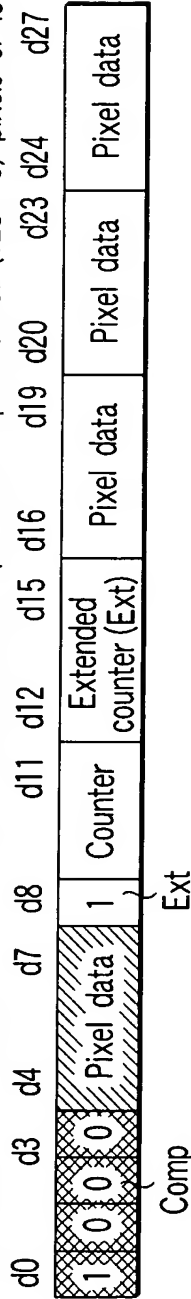
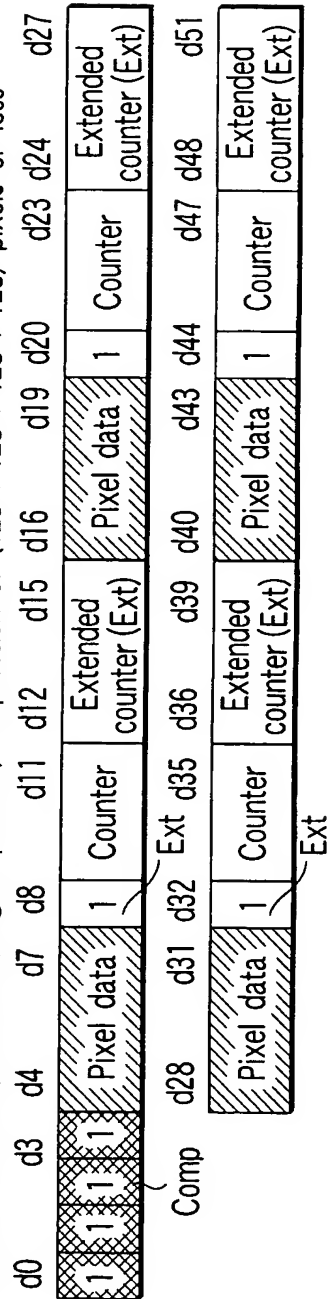


FIG. 118C

In case of all compressions (longest pattern): Expression of $(128 + 128 + 128 + 128)$ pixels or less



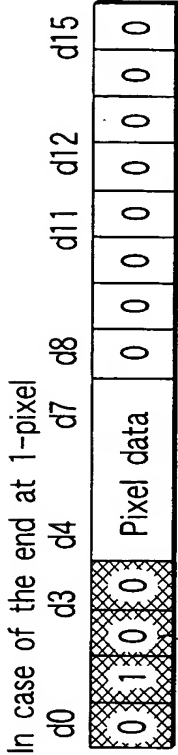


FIG. 119A

FIG. 119B

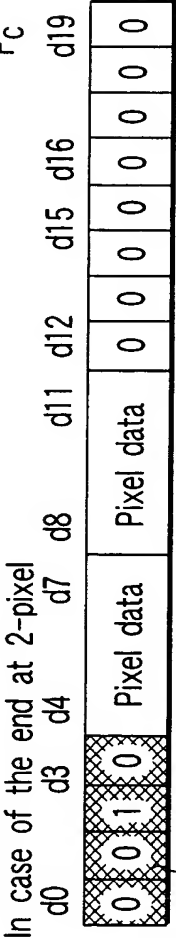


FIG. 119C

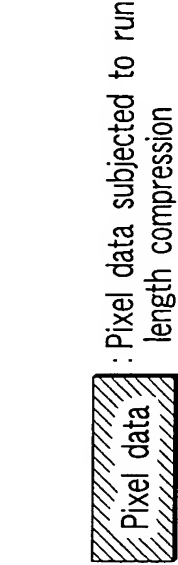


FIG. 119D

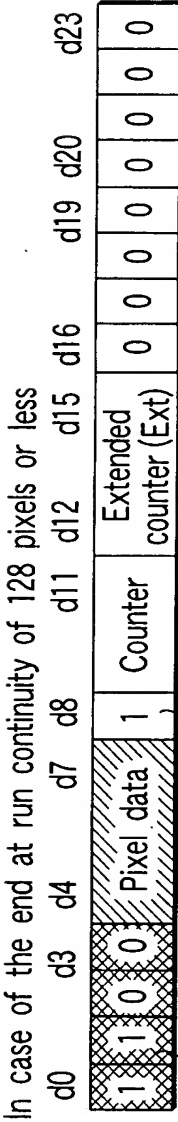


FIG. 119E

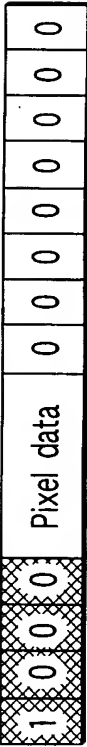
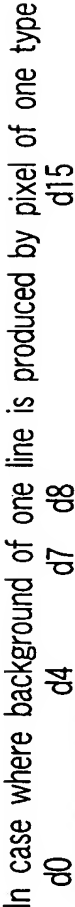
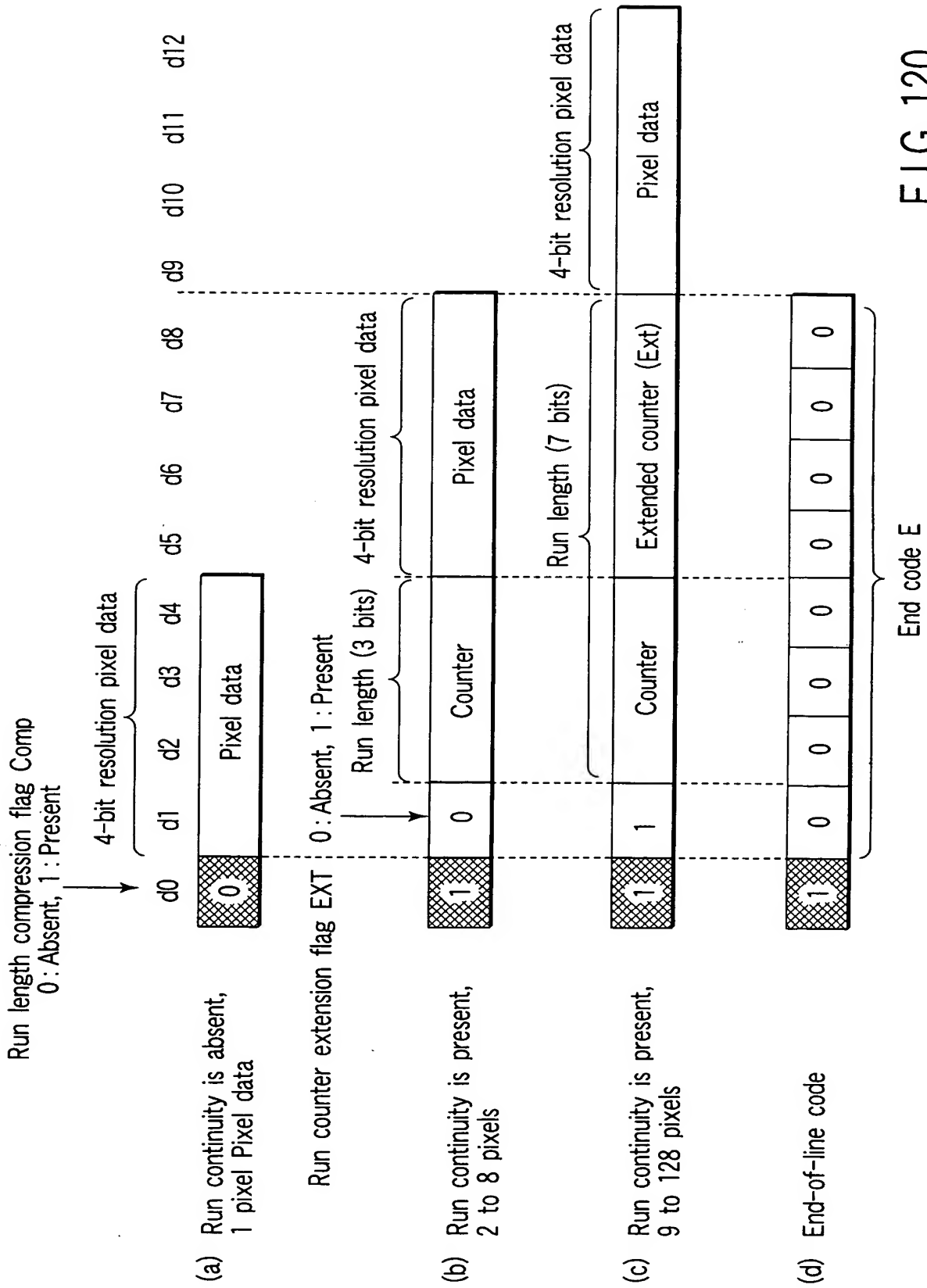


FIG. 119F



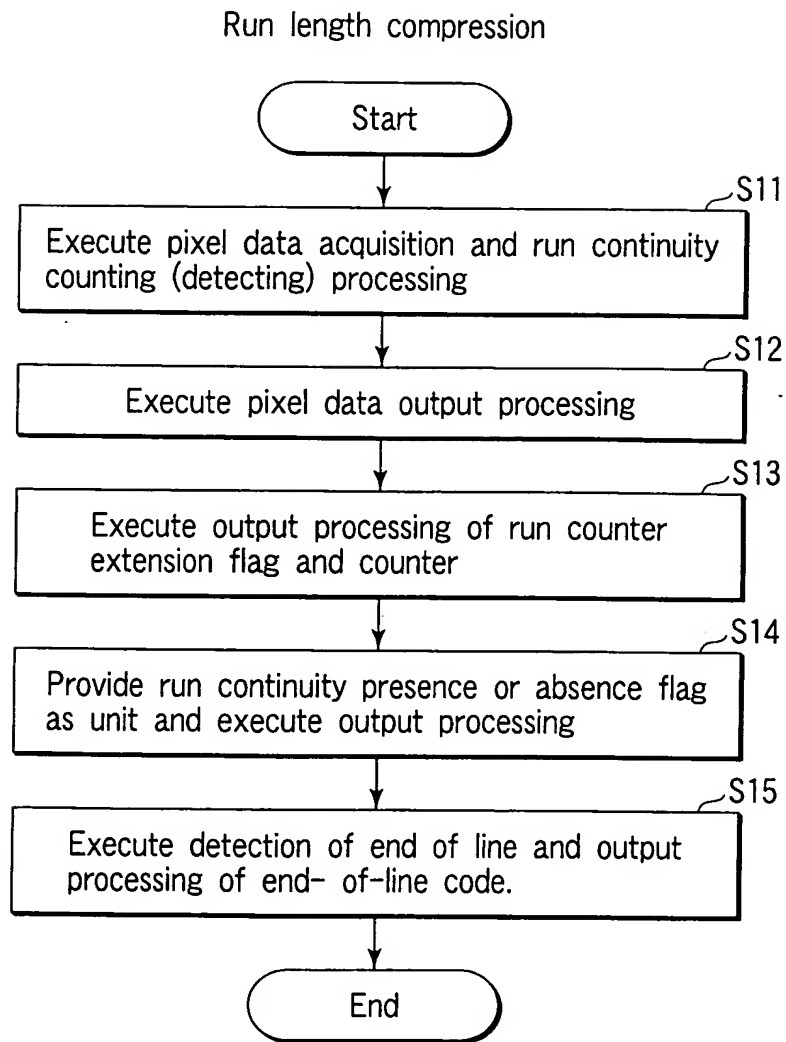


FIG. 121

Run length compression flow

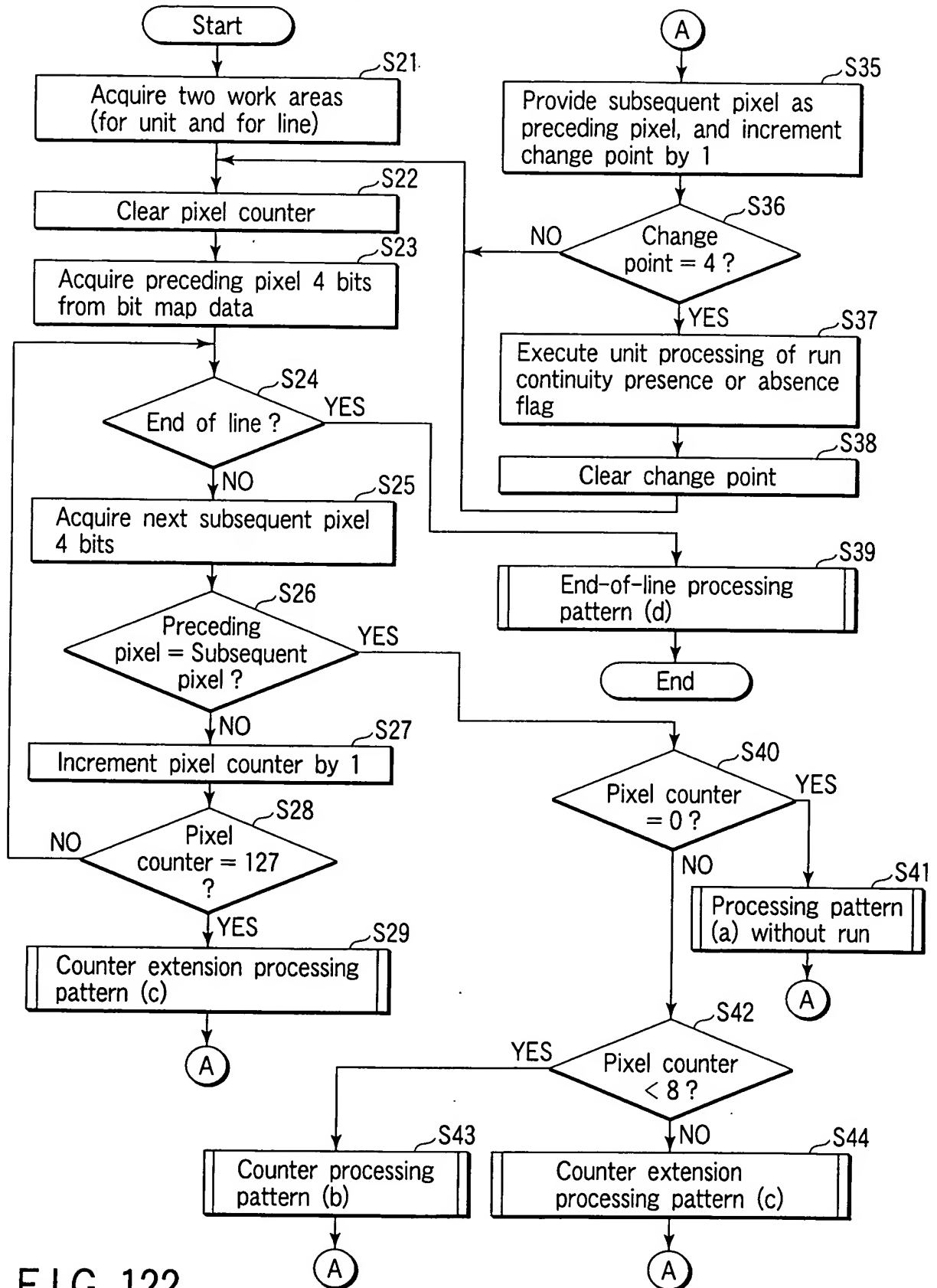


FIG. 122

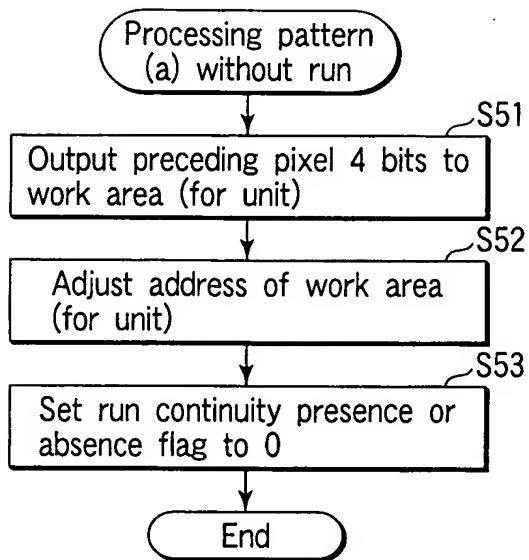


FIG. 123A

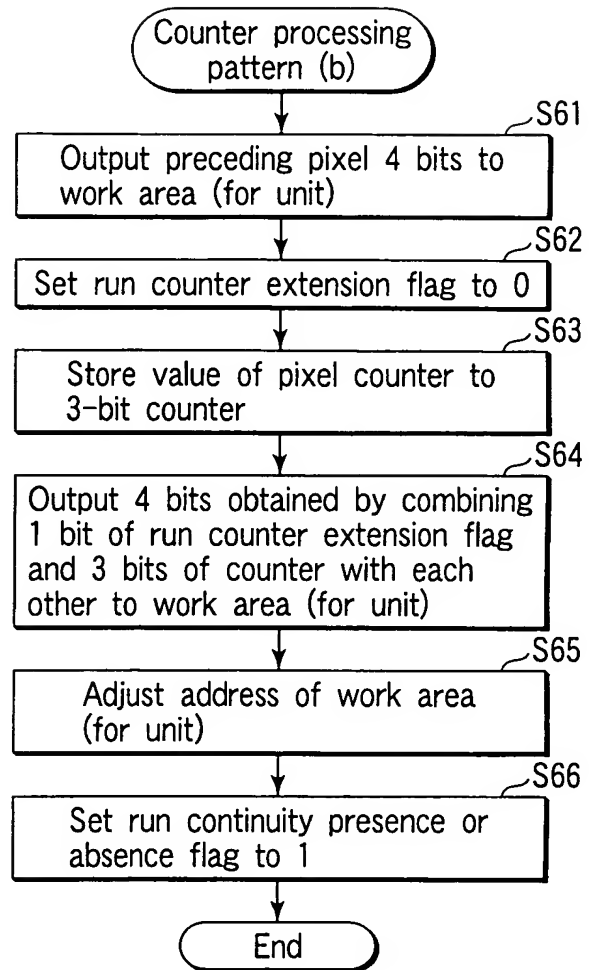


FIG. 123B

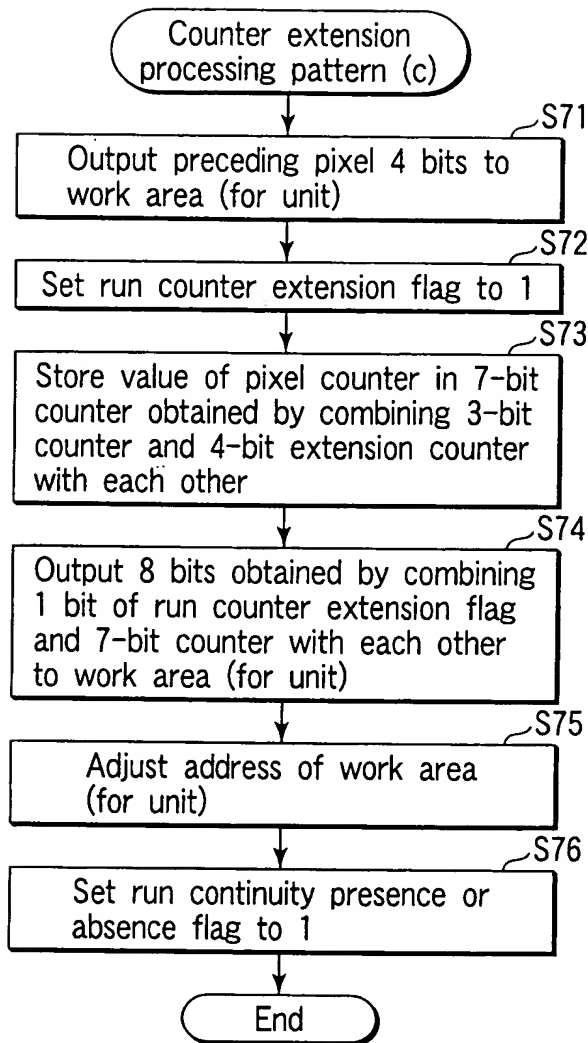


FIG. 124A

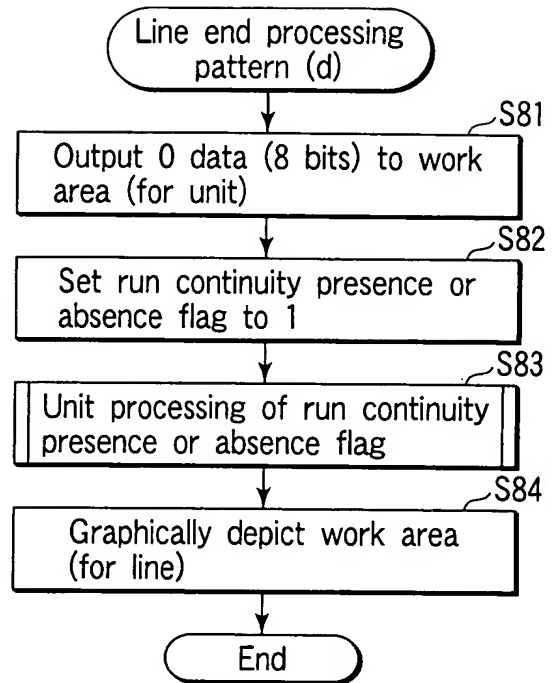


FIG. 124B

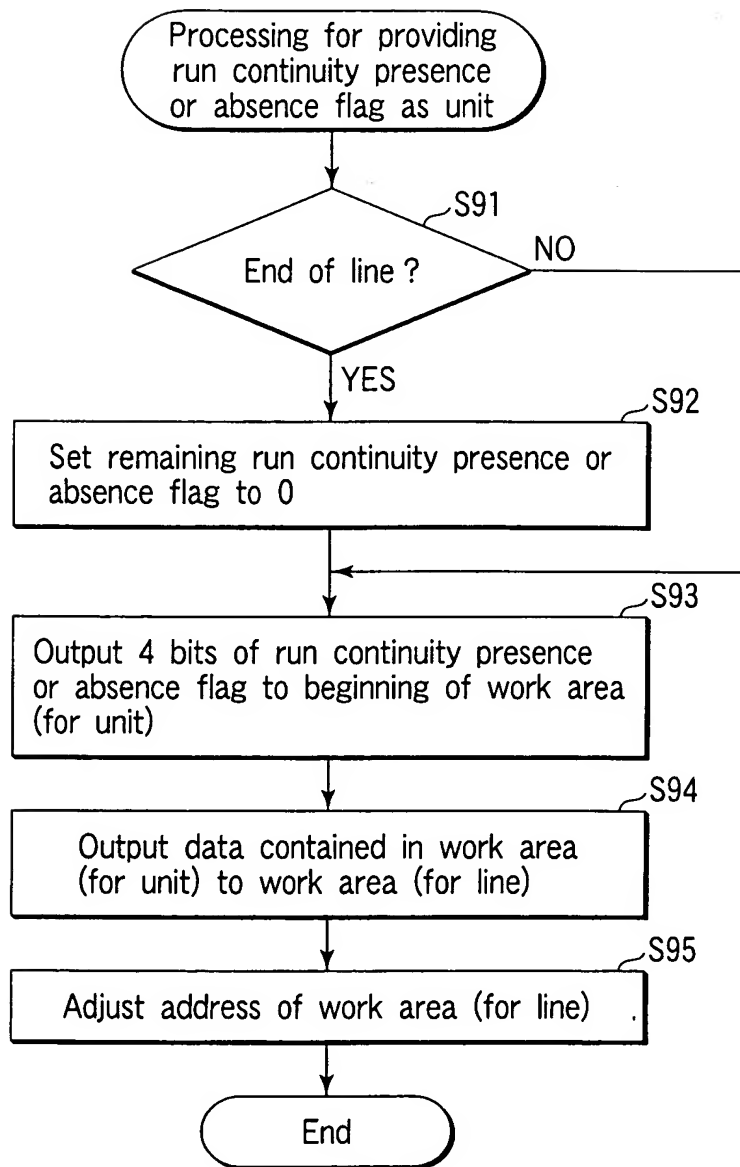
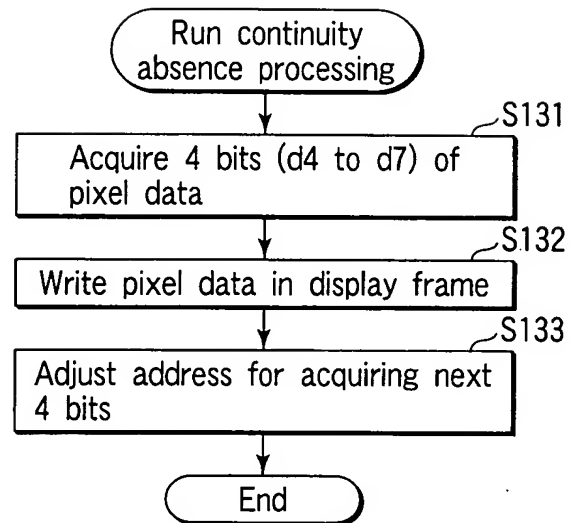
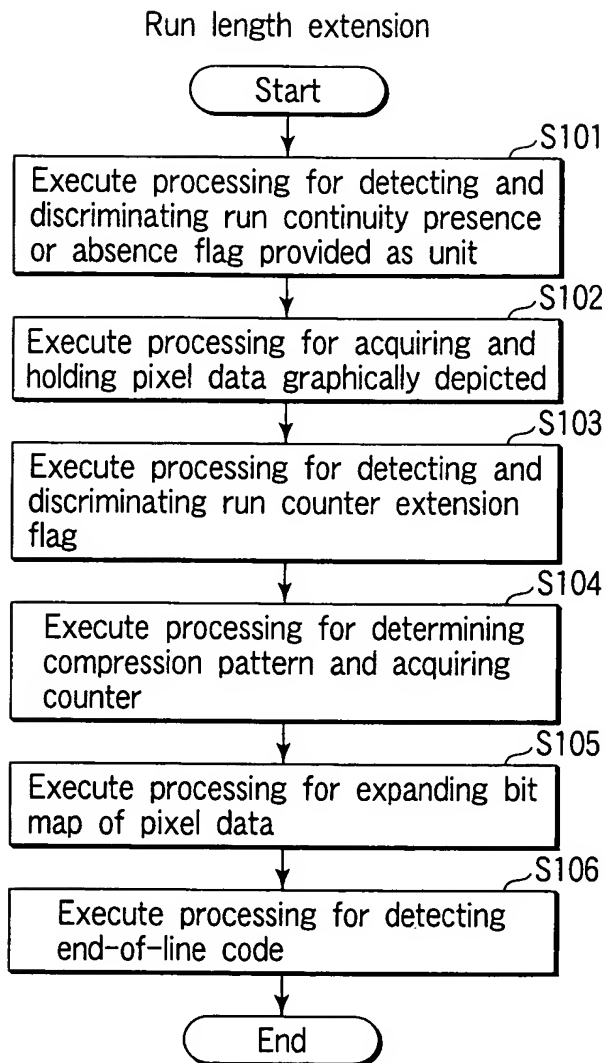


FIG. 125



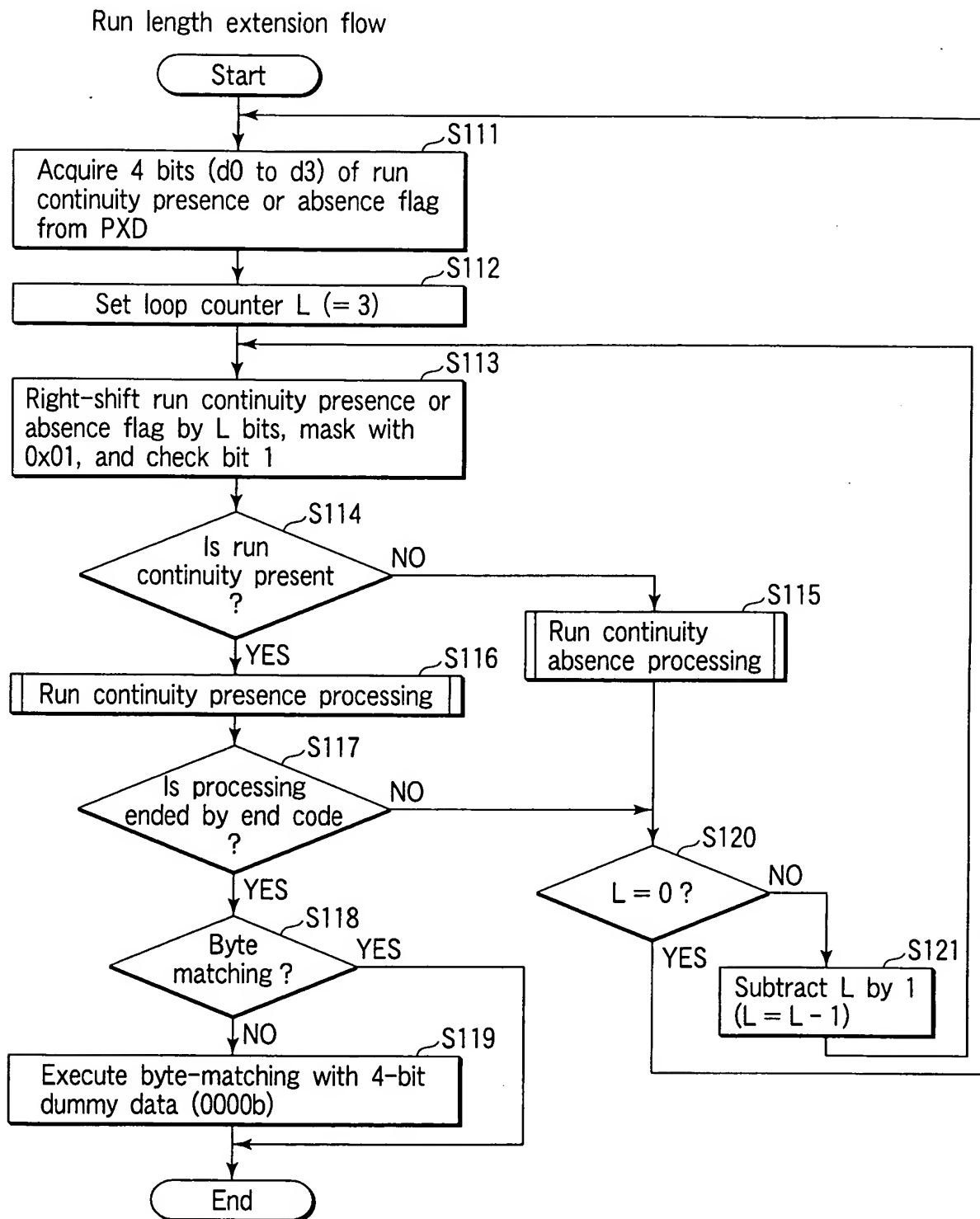


FIG. 127

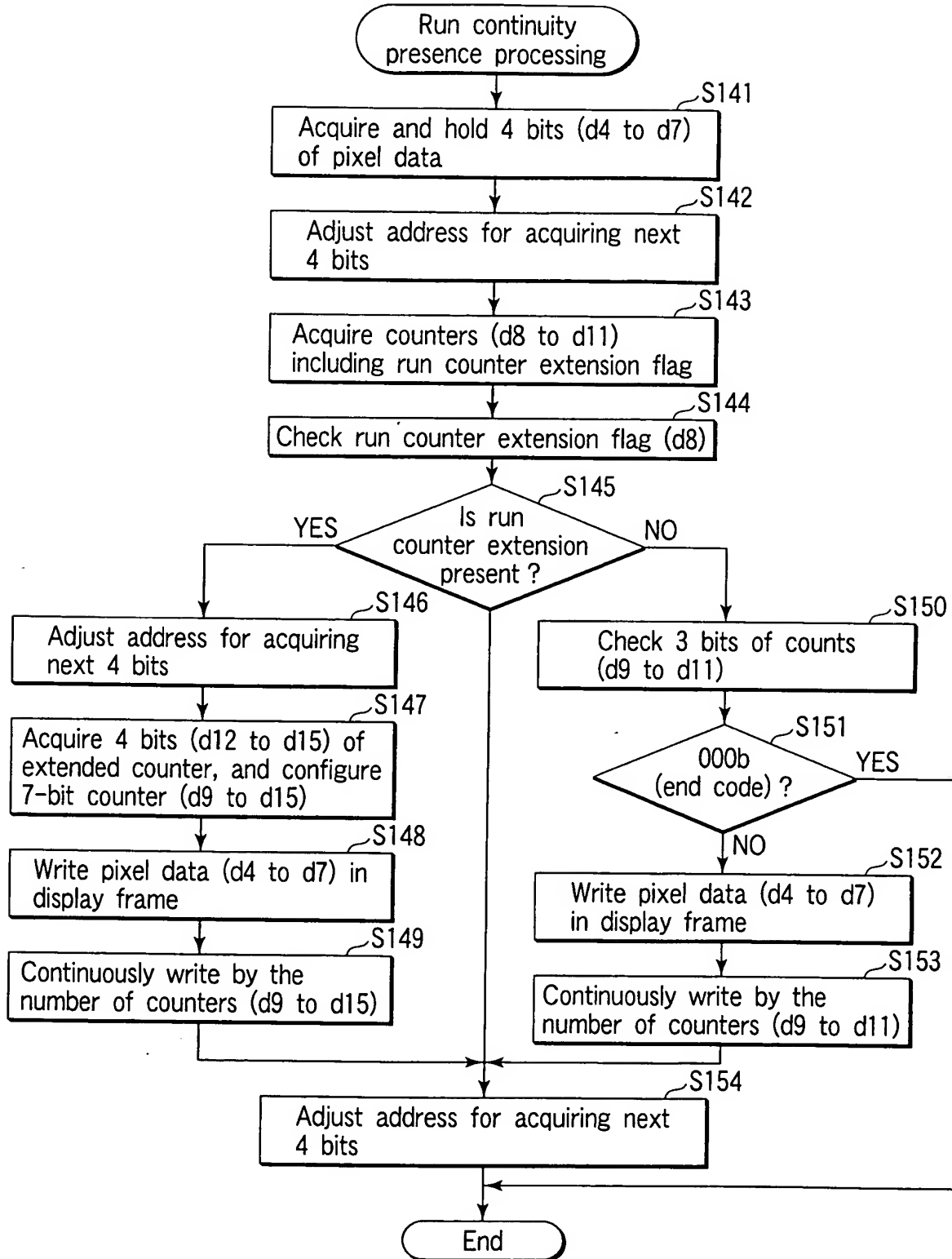


FIG. 129

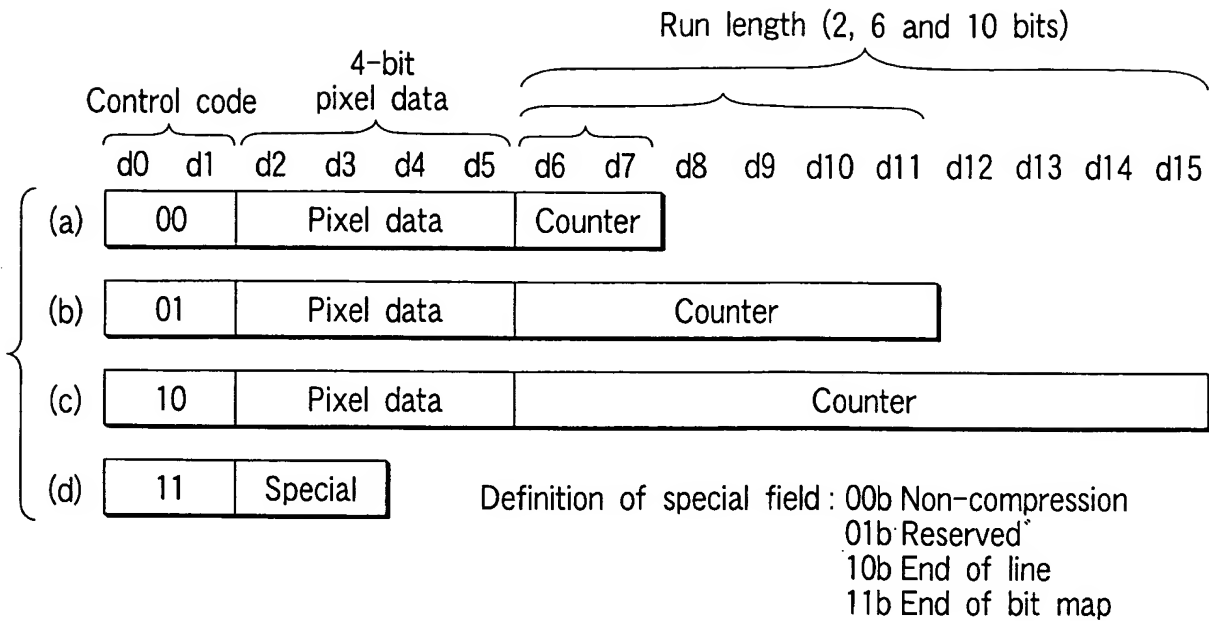


FIG. 130

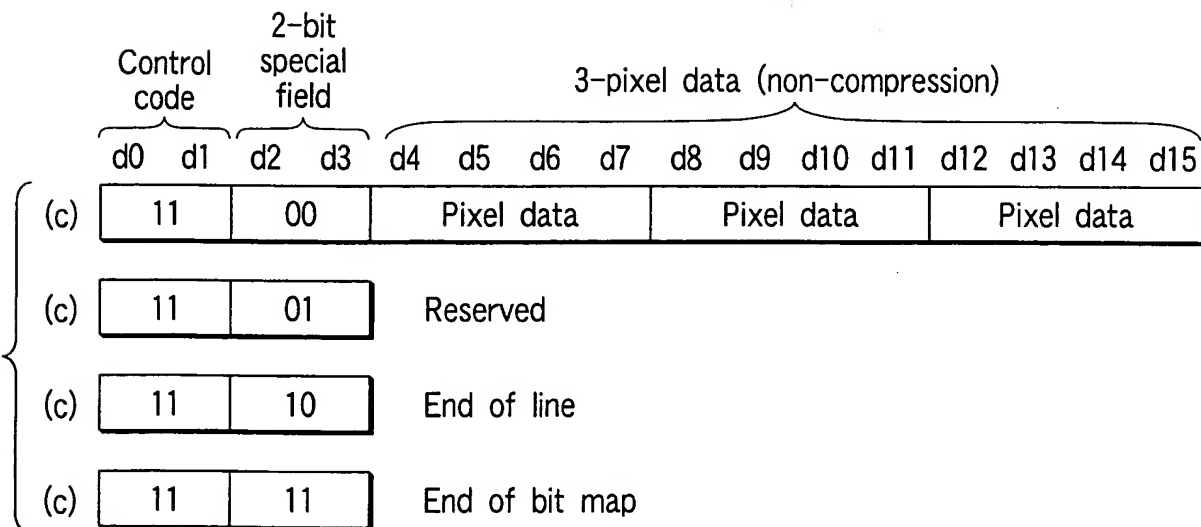


FIG. 131

Example of run length compression per unit

PXD before compression (bit map data)

P0	P1	P2	P3	P4	...	P10	P11	P12	P13	...	P137	P138
0001	0010	0010	0011	0011	...	0011	0100	0100	0100	...	0100	0100

PXD after compression

0111	0001	0010	0001	0011	0111	0100	1111	1111
(Unit header)	(P0)	(P1 to P2)	(P3 to P10)	(P11 to P138)				

FIG. 132

d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12
Comp 1	Pixel data 1				Ext 1	Counter 1			Counter 1 (When Ext 1=1b)			
d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12
Comp 2	Pixel data 2				Ext 2	Counter 2			Counter 2 (When Ext 2=1b)			
d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12
Comp 3	Pixel data 3				Ext 3	Counter 3			Counter 3 (When Ext 3=1b)			
d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12
Comp 4	Pixel data 4				Ext 4	Counter 4			Counter 4 (When Ext 4=1b)			

b55	b54	b53	b52	b51	b50	b49	b48
Comp 1	Comp 2	Comp 3	Comp 4	Pixel data 1			
b47	b46	b45	b44	b43	b42	b41	b40
Ext 1	Counter 1			Counter 1 (When Ext=1b)			
b39	b38	b37	b36	b35	b34	b33	b32
Pixel data 2				Ext 2	Counter 2		
b31	b30	b29	b28	b27	b26	b25	b24
Counter 2 (When Ext=1b)				Pixel data 3			
b23	b22	b21	b20	b19	b18	b17	b16
Ext 3	Counter 3			Counter 3 (When Ext=1b)			
b15	b14	b13	b12	b11	b10	b9	b8
Pixel data 4				Ext 4	Counter 4		
b7	b6	b5	b4	b3	b2	b1	b0
Counter 4 (When Ext=1b)				...			

FIG. 133

Display control sequence table (SP_DDCSQT)		Description order
	Contents	
SP_DCSQ #0	Display control sequence #0	
SP_DCSQ #1	Display control sequence #1	
:		
:		
SP_DCSQ #n	Display control sequence #n	

FIG. 134

Display control sequence (SP_DCSQ)		Description order
	Contents	Number of bytes
(1)SP_DCSQ_STM	Start time of SP_DCSQ	2 bytes
(2)SP_NXT_DCSQ_SA	Start address of next SP_DCSQ	4 bytes
(3)SP_DCCMD #1	Display control command #1	
:	:	
SP_DCCMD #n	Display control command #n	

FIG. 135

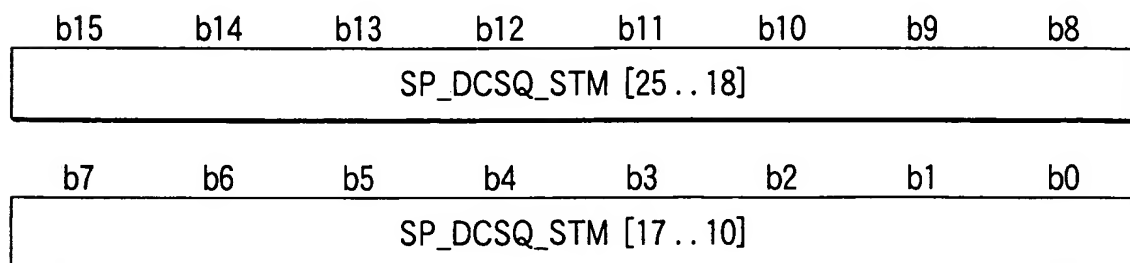


FIG. 136

Display control command (SP_DCCMD)

Command name	Contents	Codes	Number of extended fields
(1)FSTA_DSP	Forcibly set pixel data display start timing	00h	0 bytes
(2)STA_DSP	Set pixel data display start timing	01h	0 bytes
(3)STP_DSP	Set pixel data display stop timing	02h	0 bytes
(4)SET_COLOR	Set color code of pixel data	03h	8 bytes
(5)SET_CONTR	Set contrast between pixel data and main picture	04h	8 bytes
(6)SET_DAREA	Set pixel data display region	05h	6 bytes
(7)SET_DSPXA	Set pixel data display start address	06h	8 bytes
(8)CHG_COLCON	Set change of pixel data color and contrast	07h	PCD size + 2 bytes
(9)CMD_END	End display control command	FFh	0 bytes

FIG. 137

FSTA_DSP

b7	b6	b5	b4	b3	b2	b1	b0
0	0	0	0	0	0	0	0

FIG. 138A

STA_DSP

b7	b6	b5	b4	b3	b2	b1	b0
0	0	0	0	0	0	0	1

FIG. 138B

STP_DSP

b7	b6	b5	b4	b3	b2	b1	b0
0	0	0	0	0	0	1	0

FIG. 138C

SET_COLOR

b71	b70	b69	b68	b67	b66	b65	b64
0	0	0	0	0	0	1	1
b63	b62	b61	b60	b59	b58	b57	b56
Color code of pixel 16				Color code of pixel 15			
b55	b54	b53	b52	b51	b50	b49	b48
Color code of pixel 14				Color code of pixel 13			
b47	b46	b45	b44	b43	b42	b41	b40
Color code of pixel 12				Color code of pixel 11			
b39	b38	b37	b36	b35	b34	b33	b32
Color code of pixel 10				Color code of pixel 9			
b31	b30	b29	b28	b27	b26	b25	b24
Color code of pixel 8				Color code of pixel 7			
b23	b22	b21	b20	b19	b18	b17	b16
Color code of pixel 6				Color code of pixel 5			
b15	b14	b13	b12	b11	b10	b9	b8
Color code of pixel 4				Color code of pixel 3			
b7	b6	b5	b4	b3	b2	b1	b0
Color code of pixel 2				Color code of pixel 1			

FIG. 139

SET_CONTR							
b71	b70	b69	b68	b67	b66	b65	b64
0	0	0	0	0	1	0	0
b63	b62	b61	b60	b59	b58	b57	b56
Contrast of pixel 16				Contrast of pixel 15			
b55	b54	b53	b52	b51	b50	b49	b48
Contrast of pixel 14				Contrast of pixel 13			
b47	b46	b45	b44	b43	b42	b41	b40
Contrast of pixel 12				Contrast of pixel 11			
b39	b38	b37	b36	b35	b34	b33	b32
Contrast of pixel 10				Contrast of pixel 9			
b31	b30	b29	b28	b27	b26	b25	b24
Contrast of pixel 8				Contrast of pixel 7			
b23	b22	b21	b20	b19	b18	b17	b16
Contrast of pixel 6				Contrast of pixel 5			
b15	b14	b13	b12	b11	b10	b9	b8
Contrast of pixel 4				Contrast of pixel 3			
b7	b6	b5	b4	b3	b2	b1	b0
Contrast of pixel 2				Contrast of pixel 1			

FIG. 140

SET_DAREA

b55	b54	b53	b52	b51	b50	b49	b48
0	0	0	0	0	1	0	1
b47	b46	b45	b44	b43	b42	b41	b40
reserved	Start X-coordinate (Upper bits)						
b39	b38	b37	b36	b35	b34	b33	b32
Start X-coordinate (Lower bits)					End X-coordinate (Upper bits)		
b31	b30	b29	b28	b27	b26	b25	b24
End X-coordinate (Lower bits)							
b23	b22	b21	b20	b19	b18	b17	b16
reserved	Start Y-coordinate (Upper bits)						
b15	b14	b13	b12	b11	b10	b9	b8
Start Y-coordinate (Lower bits)				0	End Y-coordinate (Upper bits)		
b7	b6	b5	b4	b3	b2	b1	b0
End Y-coordinate (Lower bits)							

FIG. 141

	TV system				
	525/60	625/50	HDTV-1280	HDTV-1440	HDTV-1920
X-coordinate value	0~719	0~719	0~1279	0~1439	0~1919
Y-coordinate value	2~479	2~574	2~719	2~1079	2~1079

FIG. 142

SET_DSPXA

b71	b70	b69	b68	b67	b66	b65	b64
0	0	0	0	0	1	1	0

b63	b62	b61	b60	b59	b58	b57	b56
Address of start pixel data for top field and/or address of plain data (Upper bits)							

b55	b54	b53	b52	b51	b50	b49	b48
Address of start pixel data for top field and/or address of plain data (Middle upper bits)							

b47	b46	b45	b44	b43	b42	b41	b40
Address of start pixel data for top field and/or address of plain data (Middle lower bits)							

b39	b38	b37	b36	b35	b34	b33	b32
Address of start pixel data for top field and/or address of plain data (Lower bits)							

b31	b30	b29	b28	b27	b26	b25	b24
Address of start pixel data for bottom field (Upper bits) and/or reserved							

b23	b22	b21	b20	b19	b18	b17	b16
Address of start pixel data for bottom field (Middle upper bits) and/or reserved							

b15	b14	b13	b12	b11	b10	b9	b8
Address of start pixel data for bottom field (Middle lower bits) and/or reserved							

b7	b6	b5	b4	b3	b2	b1	b0
Address of start pixel data for bottom field (Lower bits) and/or reserved							

FIG. 143

CHG_COLCON

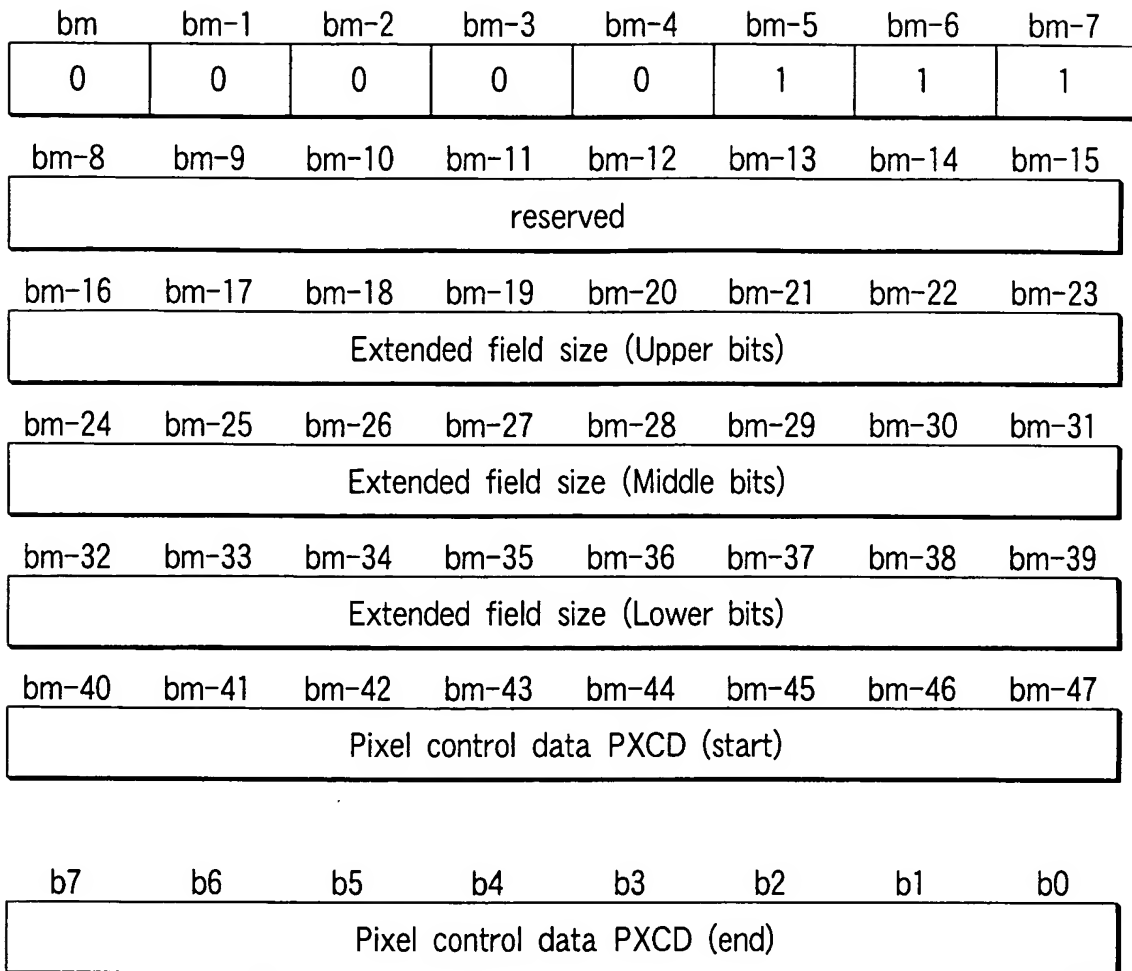


FIG. 144

CMD_END

b7	b6	b5	b4	b3	b2	b1	b0
1	1	1	1	1	1	1	1

FIG. 145

PXCD		Description order
	Contents	Number of bytes
LN_CTLI #1	Line control information #1	4 bytes
PX_CTLI #1	Pixel control information #1	18 bytes
:	:	:
PX_CTLI #i	Pixel control information #i	18 bytes
LN_CTLI #2	Line control information #2	4 bytes
PX_CTLI #1	Pixel control information #1	18 bytes
:	:	:
PX_CTLI #j	Pixel control information #j	18 bytes
:	:	:
LN_CTLI #n-1	Line control information #n-1	4 bytes
PX_CTLI #1	Pixel control information #1	18 bytes
:	:	:
PX_CTLI #k	Pixel control information #k	18 bytes
LN_CTLI #n	Line control information #n (end code)	4 bytes

FIG. 146

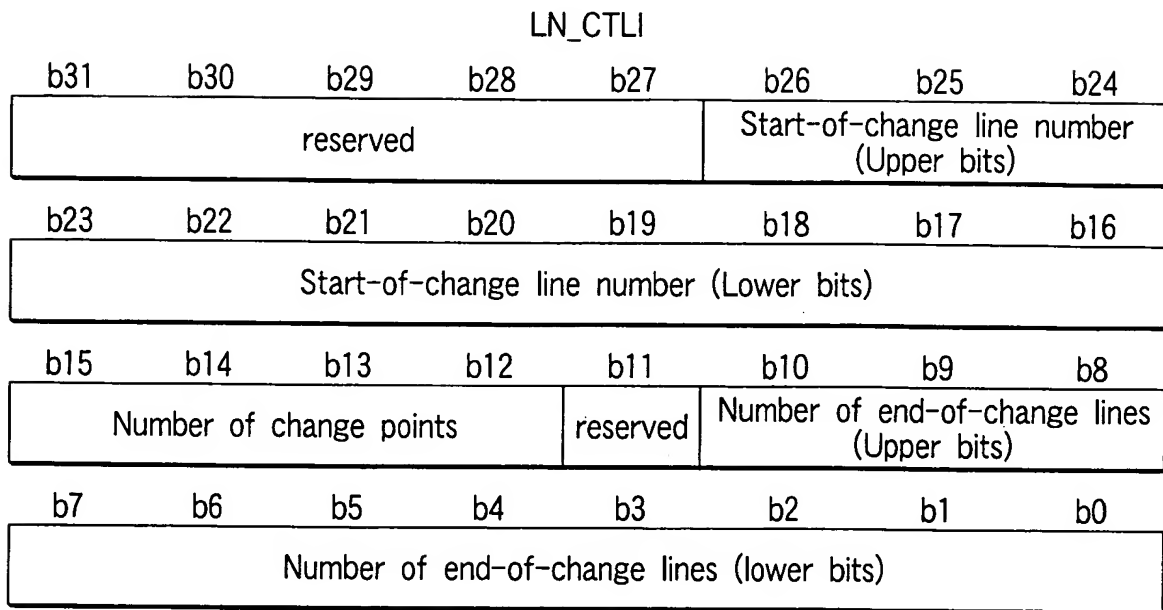


FIG. 147

	TV system				
	525/60	625/50	HDTV-1280	HDTV-1440	HDTV-1920
Line number	2~479	2~574	2~719	2~1079	2~1079

FIG. 148

PX_CTLI							
b143	b142	b141	b140	b139	b138	b137	b136
reserved					Start-of-change pixel number (Upper bits)		
b135	b134	b133	b132	b131	b130	b129	b128
Start-of-change pixel number (Lower bits)							
b127	b126	b125	b124	b123	b122	b121	b120
Contrast of new pixel 16				Color code of new pixel 16			
b119	b118	b117	b116	b115	b114	b113	b112
Contrast of new pixel 15				Color code of new pixel 15			
b111	b110	b109	b108	b107	b106	b105	b104
Contrast of new pixel 14				Color code of new pixel 14			
b103	b102	b101	b100	b99	b98	b97	b96
Contrast of new pixel 13				Color code of new pixel 13			
b95	b94	b93	b92	b91	b90	b89	b88
Contrast of new pixel 12				Color code of new pixel 12			
b87	b86	b85	b84	b83	b82	b81	b80
Contrast of new pixel 11				Color code of new pixel 11			
b79	b78	b77	b76	b75	b74	b73	b72
Contrast of new pixel 10				Color code of new pixel 10			
b71	b70	b69	b68	b67	b66	b65	b64
Contrast of new pixel 9				Color code of new pixel 9			
b63	b62	b61	b60	b59	b58	b57	b56
Contrast of new pixel 8				Color code of new pixel 8			
b55	b54	b53	b52	b51	b50	b49	b48
Contrast of new pixel 7				Color code of new pixel 7			
b47	b46	b45	b44	b43	b42	b41	b40
Contrast of new pixel 6				Color code of new pixel 6			
b39	b38	b37	b36	b35	b34	b33	b32
Contrast of new pixel 5				Color code of new pixel 5			
b31	b30	b29	b28	b27	b26	b25	b24
Contrast of new pixel 4				Color code of new pixel 4			
b23	b22	b21	b20	b19	b18	b17	b16
Contrast of new pixel 3				Color code of new pixel 3			
b15	b14	b13	b12	b11	b10	b9	b8
Contrast of new pixel 2				Color code of new pixel 2			
b7	b6	b5	b4	b3	b2	b1	b0
Contrast of new pixel 1				Color code of new pixel 1			

FIG. 149

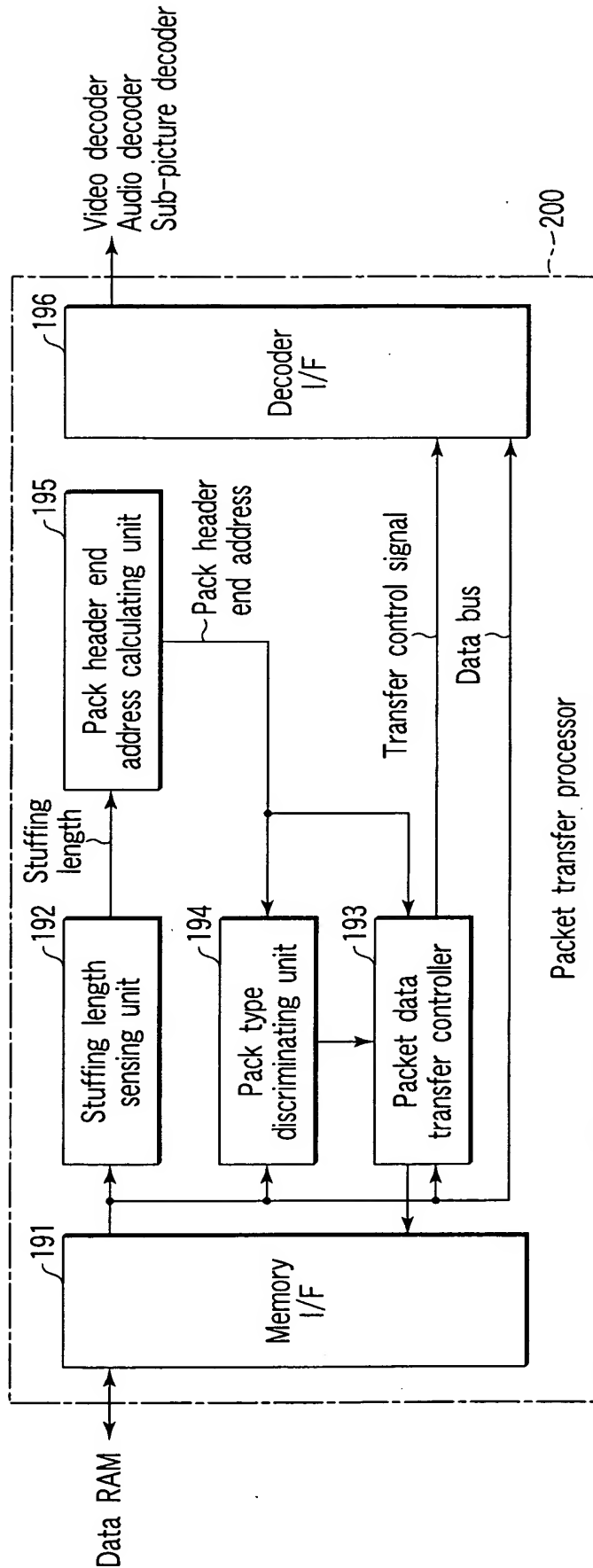


FIG. 150

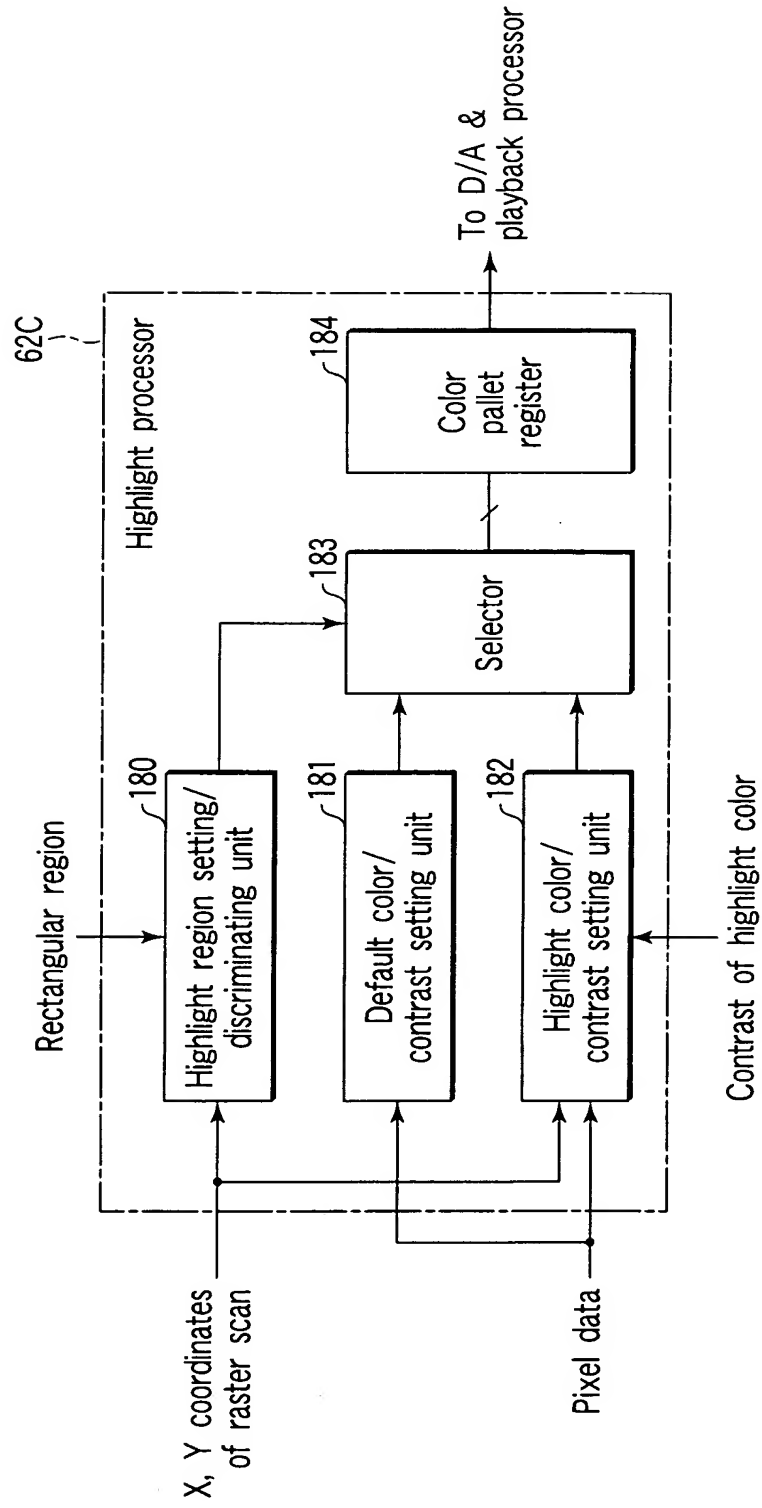


FIG. 151

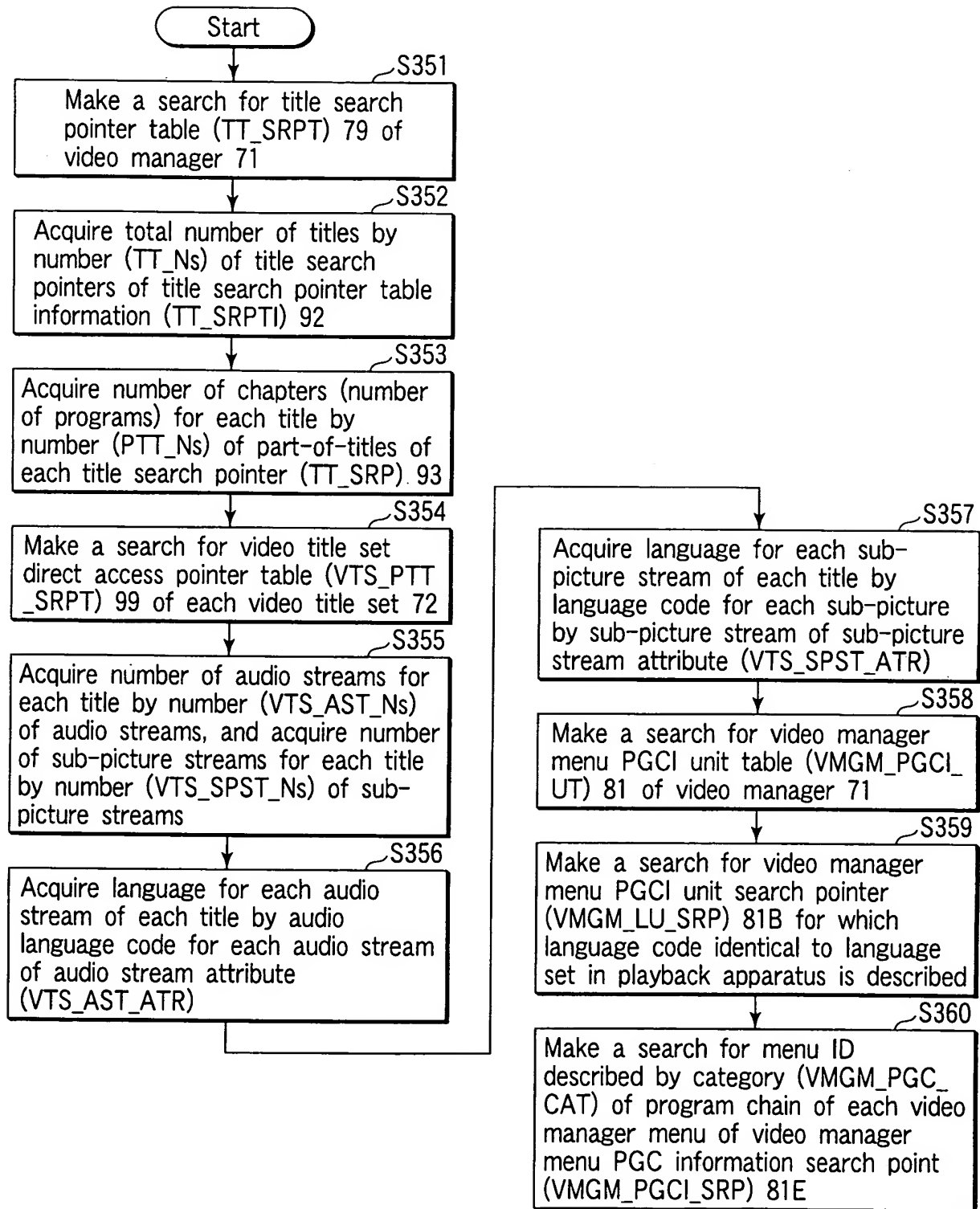


FIG. 152

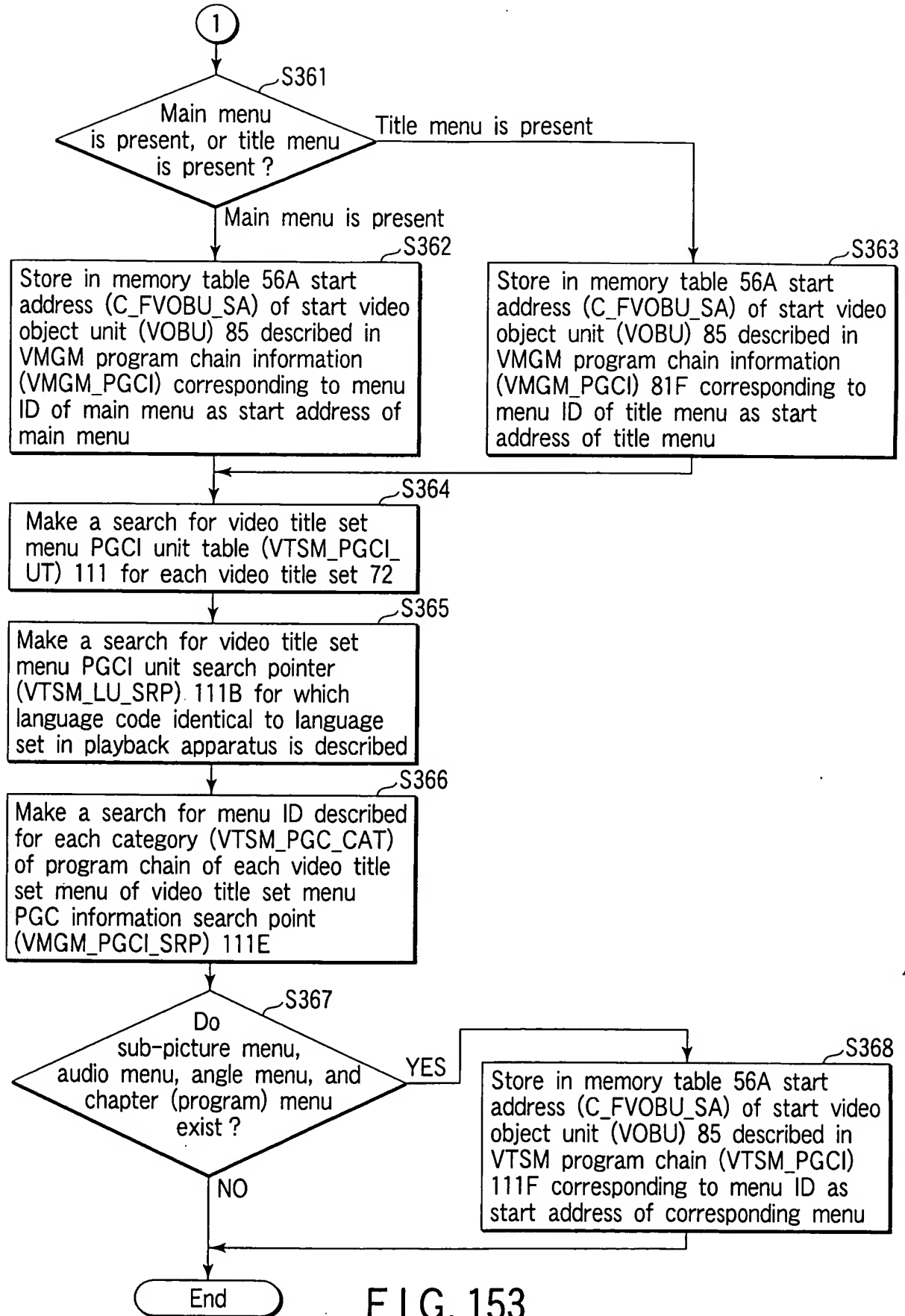


FIG. 153

Types	Start address of start video object unit
Main menu	C_FVOBU_SA of VOB described in VMGM_PGCI
Title menu	C_FVOBU_SA of VOB described in VMGM_PGCI
Chapter menu of Title 1	C_FVOBU_SA of VOB described in VTSM_PGCI
Chapter menu of Title 2	C_FVOBU_SA of VOB described in VTSM_PGCI
⋮	⋮
Audio menu of Title 1	C_FVOBU_SA of VOB described in VTSM_PGCI
Audio menu of Title 2	C_FVOBU_SA of VOB described in VTSM_PGCI
⋮	⋮
Sub-picture menu of Title 1	C_FVOBU_SA of VOB described in VTSM_PGCI
Sub-picture menu of Title 2	C_FVOBU_SA of VOB described in VTSM_PGCI
⋮	⋮
Angle menu of Title 1	C_FVOBU_SA of VOB described in VTSM_PGCI
Angle menu of Title 2	C_FVOBU_SA of VOB described in VTSM_PGCI
⋮	⋮

FIG. 154

6
}

MAIN MENU	
1 TITLE	1 of 3
2 CHAPTER	2 of 5
3 AUDIO	JAPANESE
4 SUB-PICTURE	ENGLISH
5 ANGLE	1 of 3
6 LANGUAGE	

FIG. 155



Title Information	
	1) from New York
	2) from Paris

FIG. 156A

Chapter Information	
<input type="checkbox"/>	1) Metropolitan
<input type="checkbox"/>	2) Manhattan
<input type="checkbox"/>	3) 5th Street

FIG. 156B

Audio Information	
1) English	
<input type="checkbox"/>	2) French
3) Japanese	

FIG. 156C

Subtitle Information	
<input type="checkbox"/>	1) English
2) French	

FIG. 156D

Angle Information	
1) Left	
<input type="checkbox"/>	2) Right
3) Center	

FIG. 156E

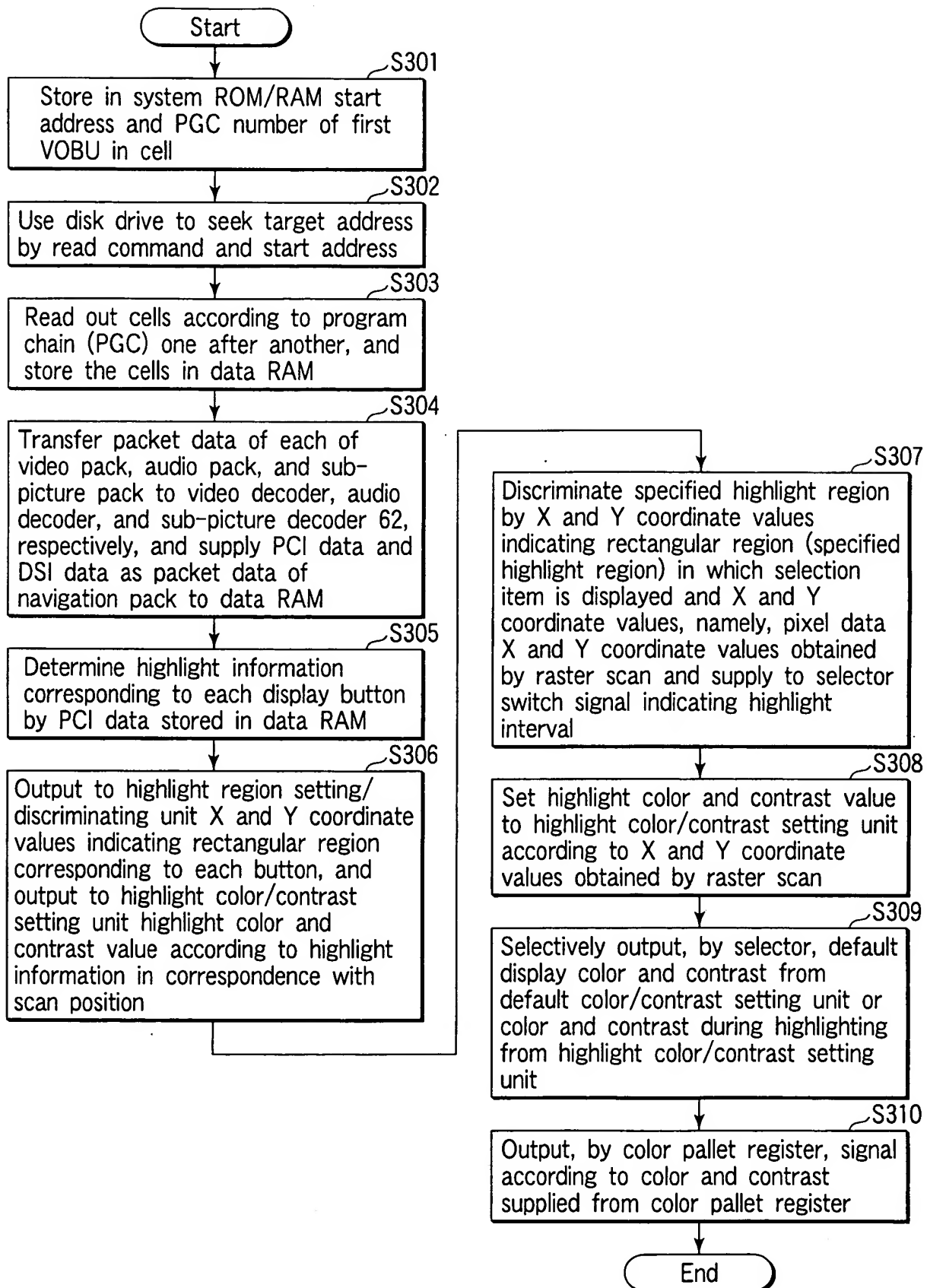
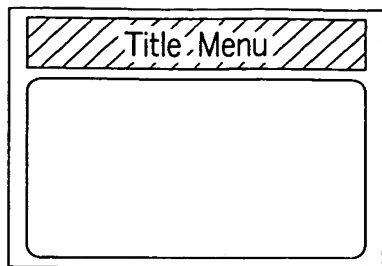
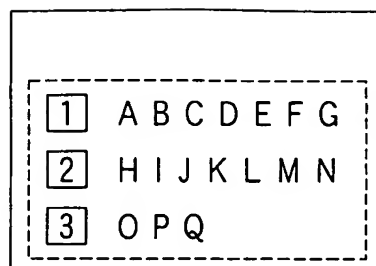


FIG. 157



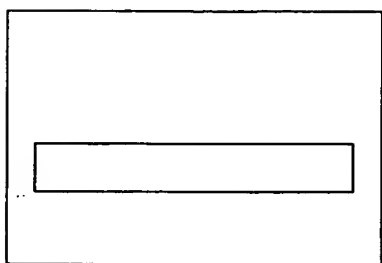
Video

FIG. 158A



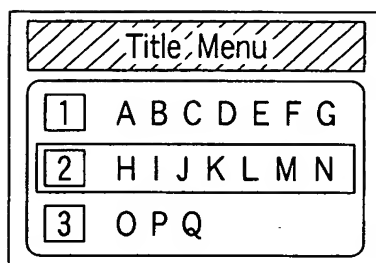
Sub-picture

FIG. 158B



Highlight information

FIG. 158C



Mixed picture

FIG. 158D

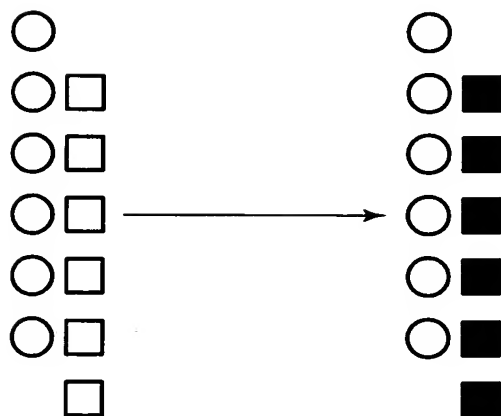


FIG. 160A

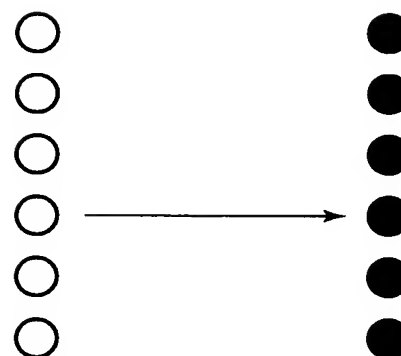
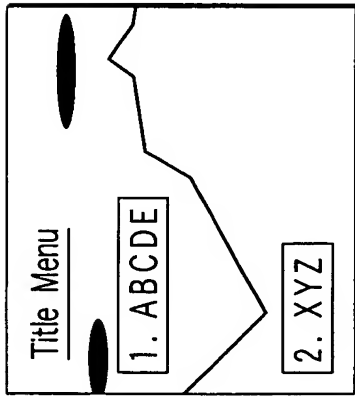
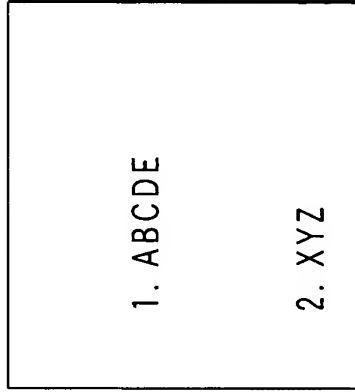


FIG. 160B



Video

FIG. 159A



Sub-picture

FIG. 159B

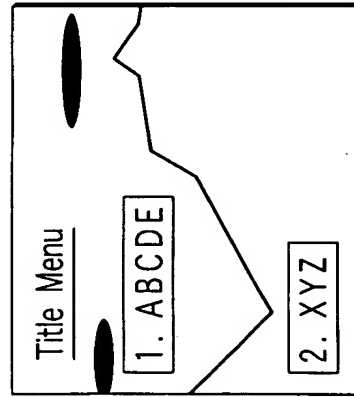


FIG. 159C

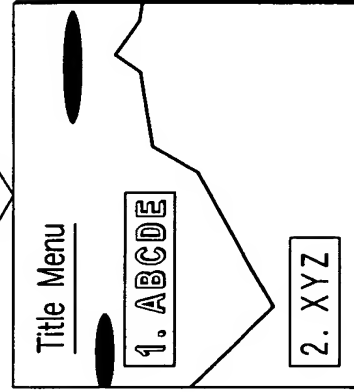


FIG. 159D

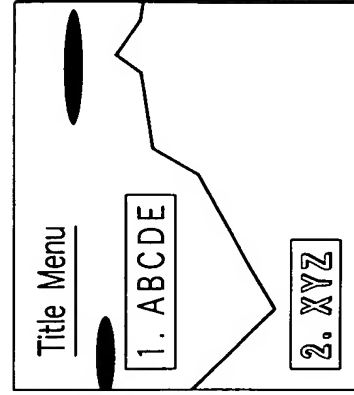


FIG. 159E

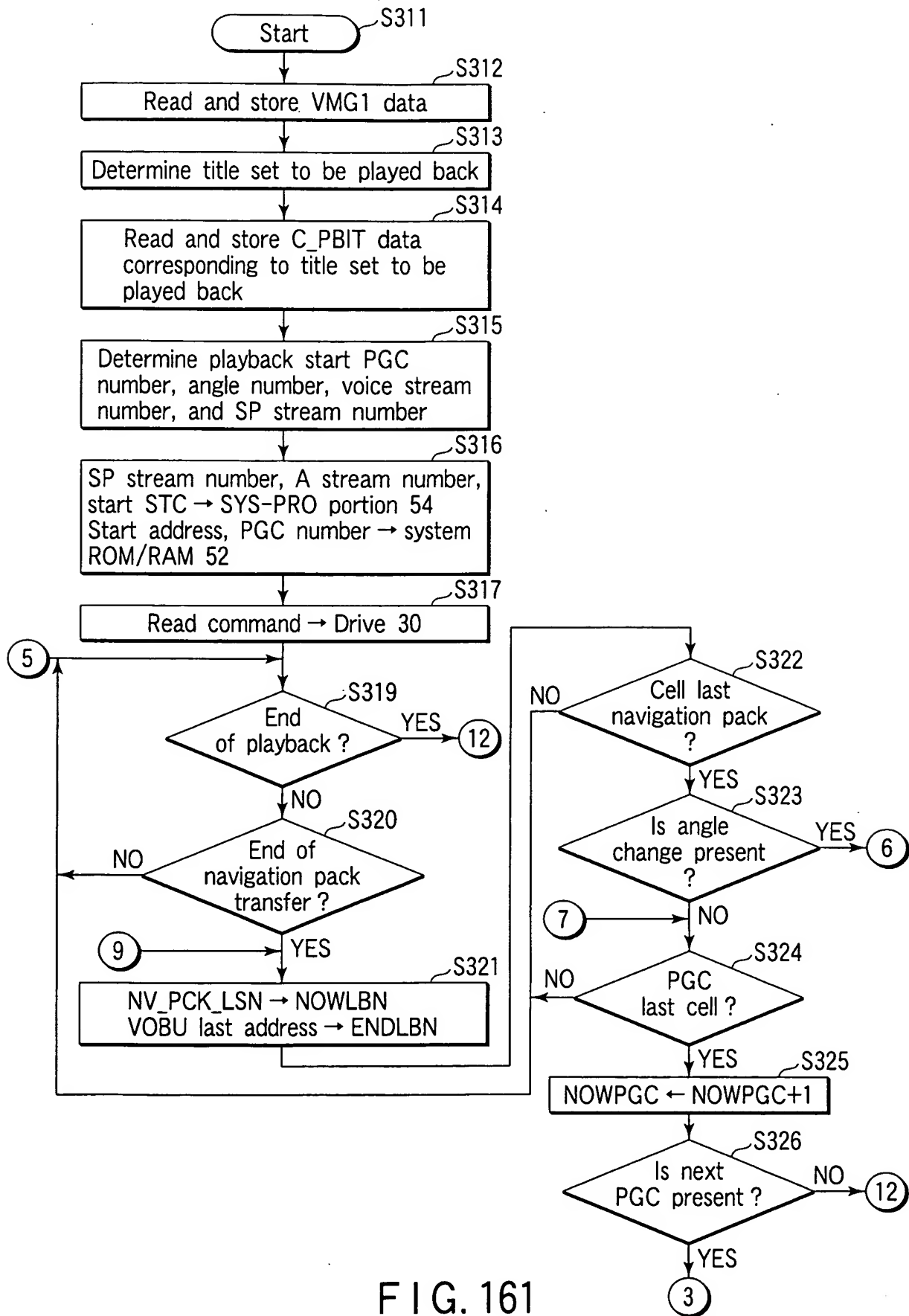


FIG. 161

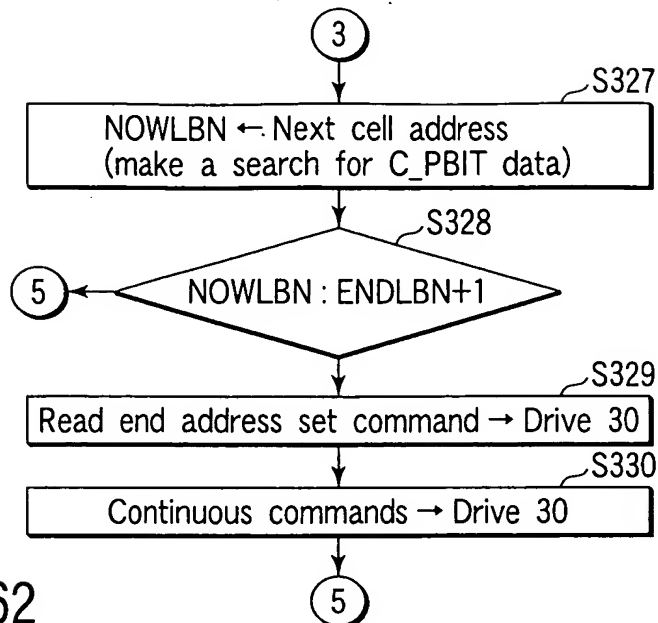


FIG. 162

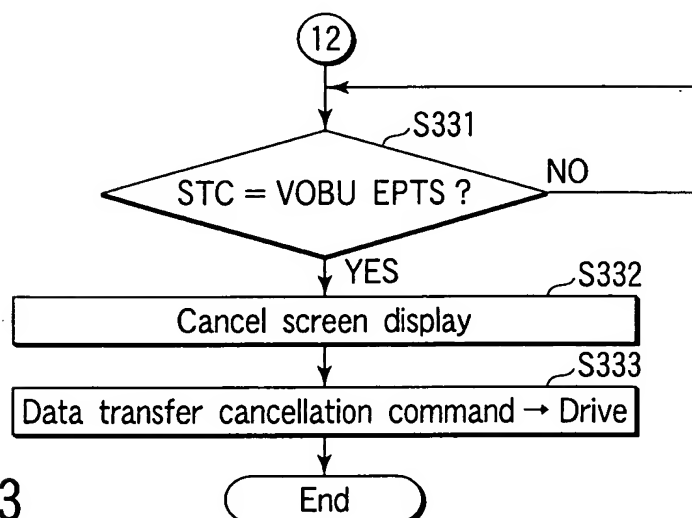


FIG. 163

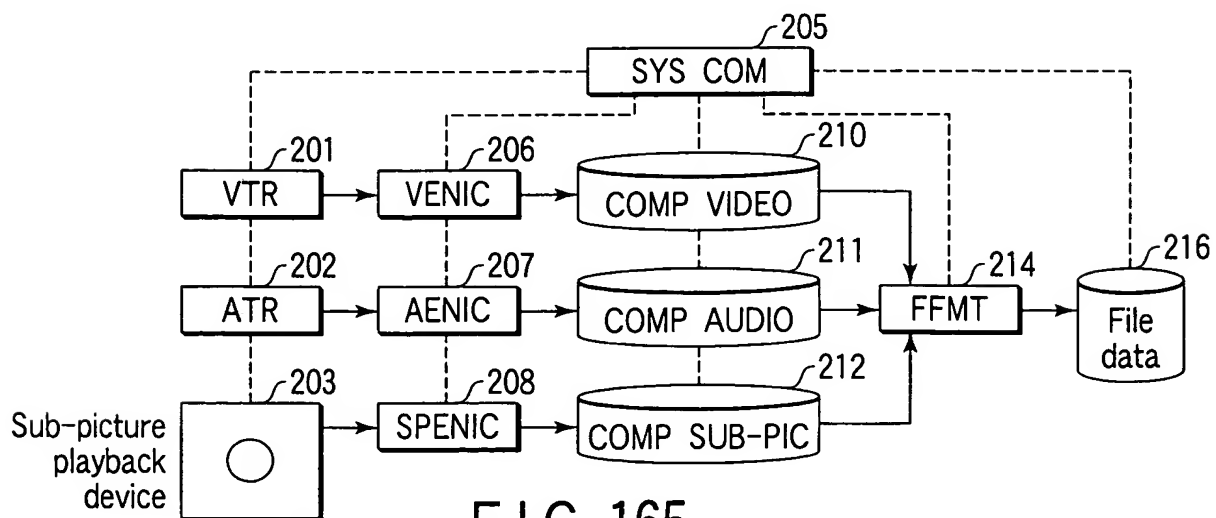


FIG. 165

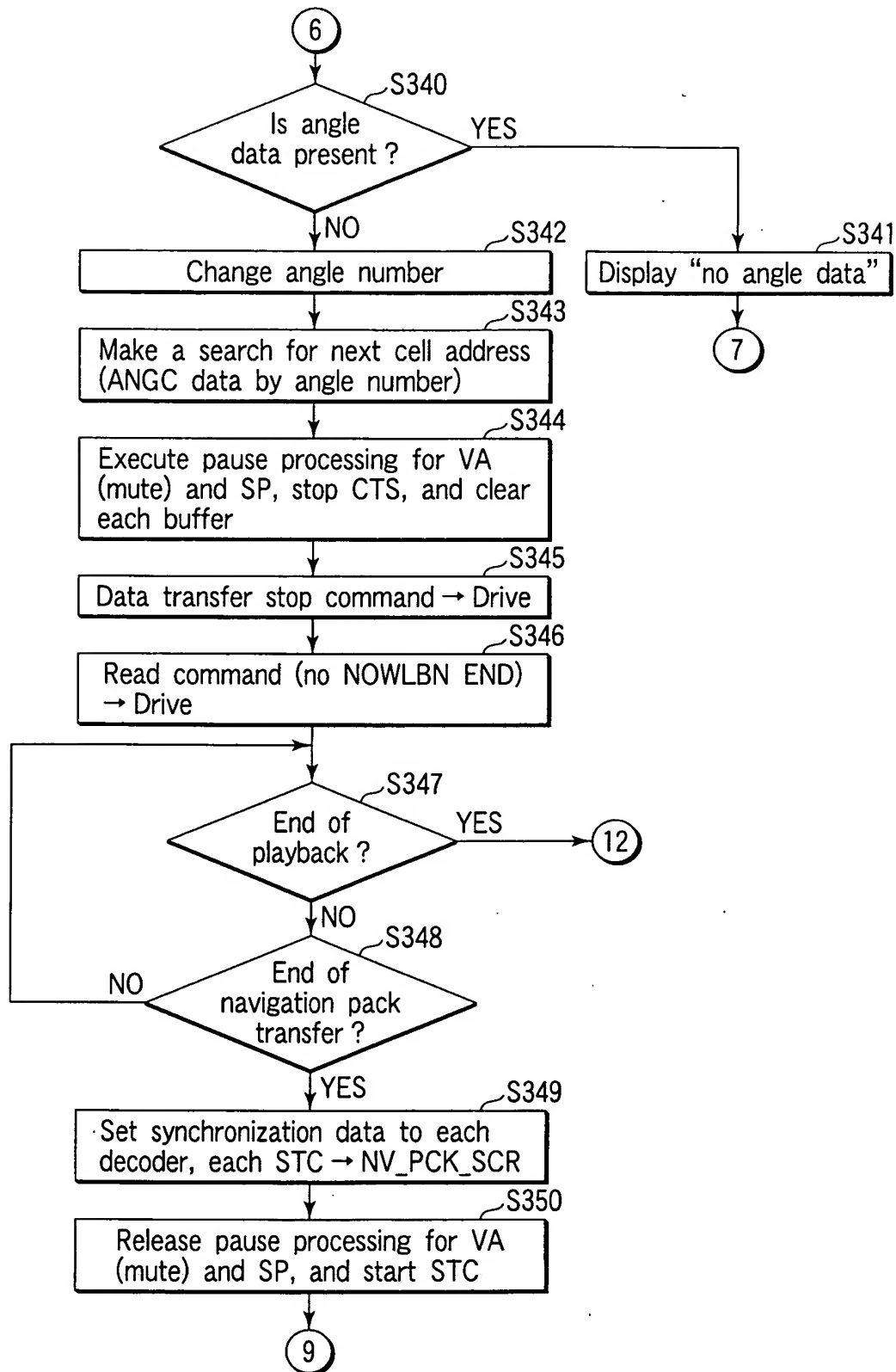


FIG. 164

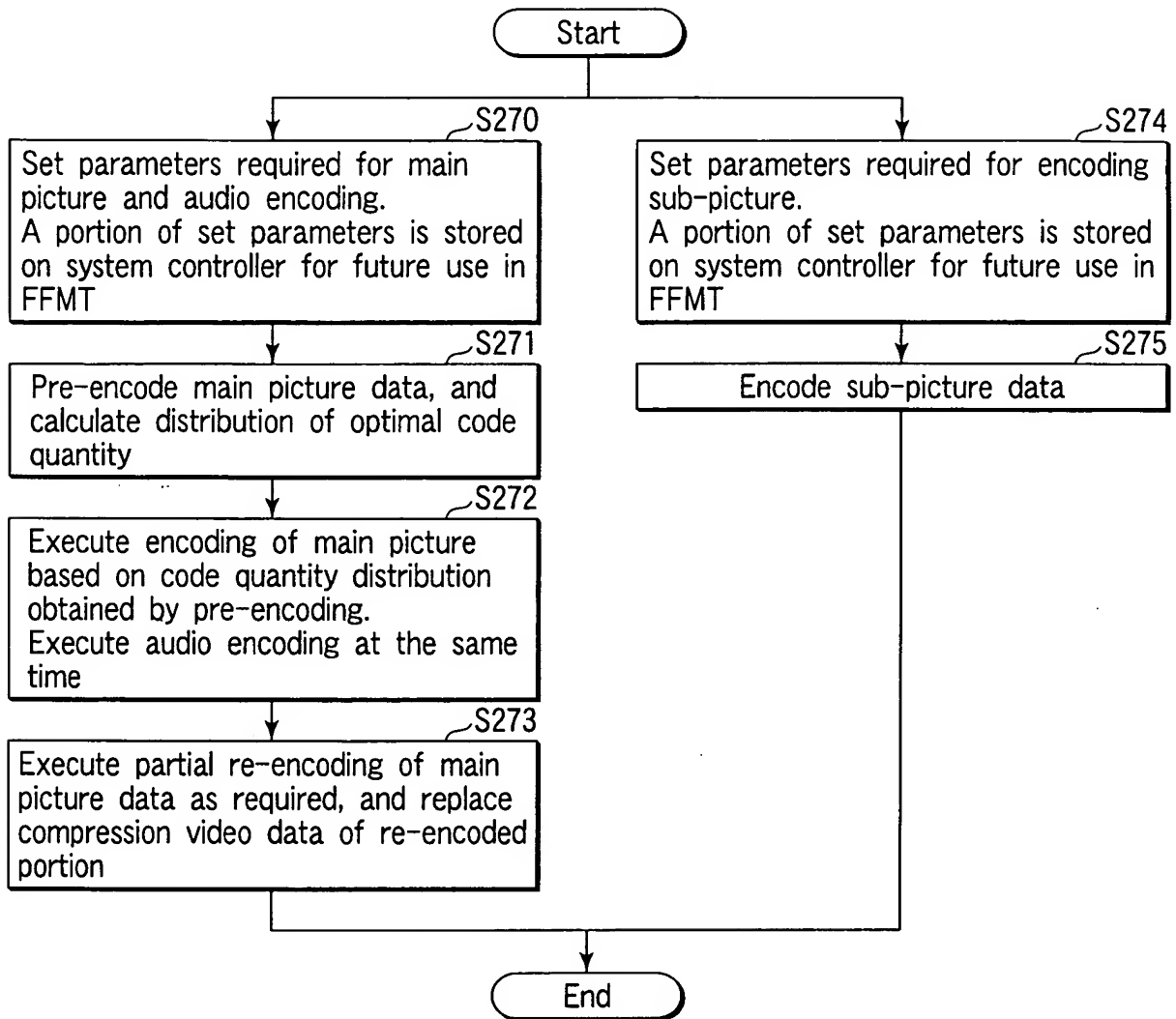
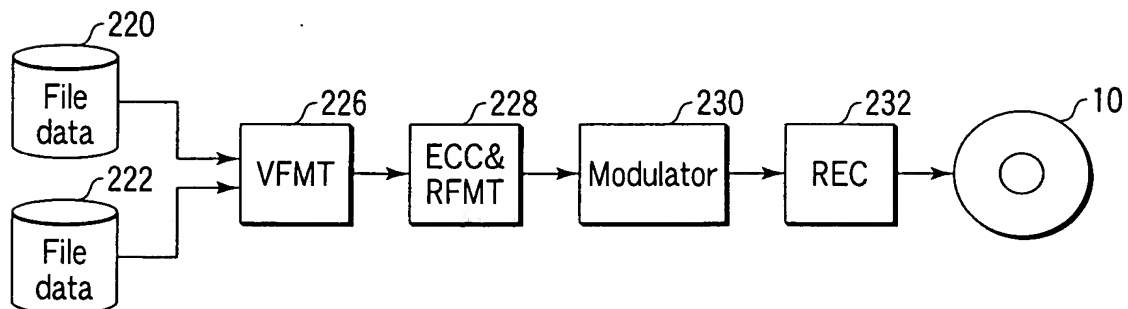
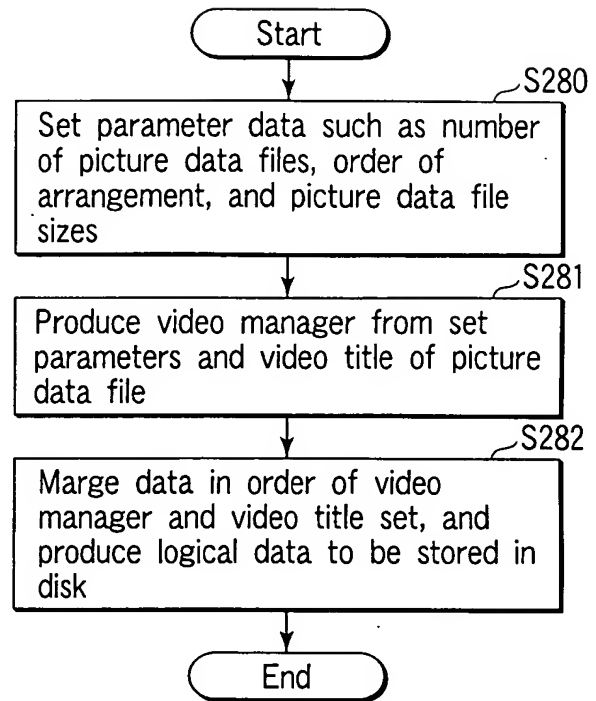
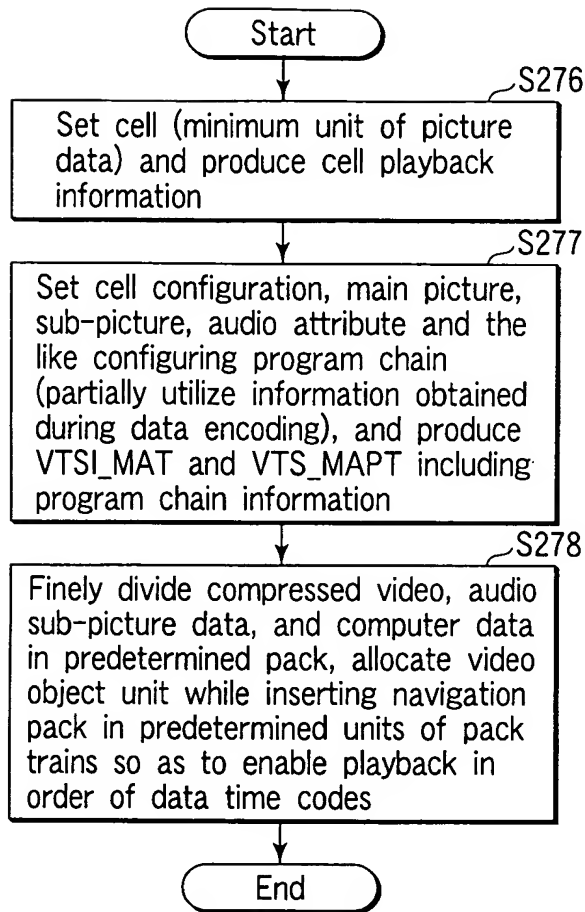


FIG. 166



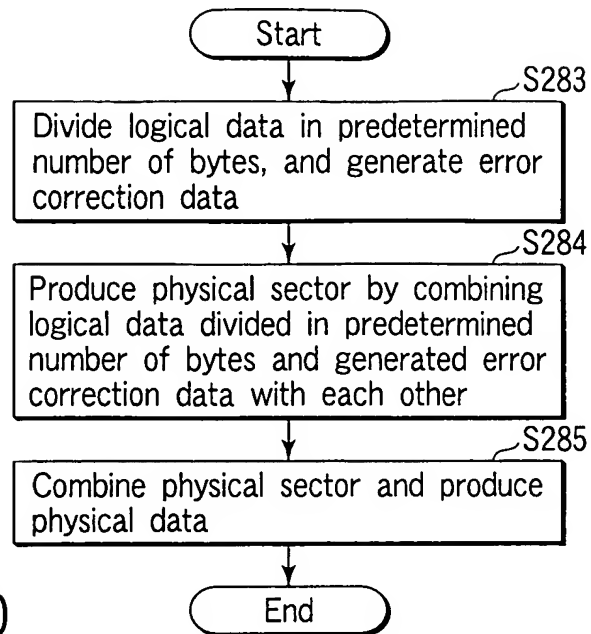


FIG. 170

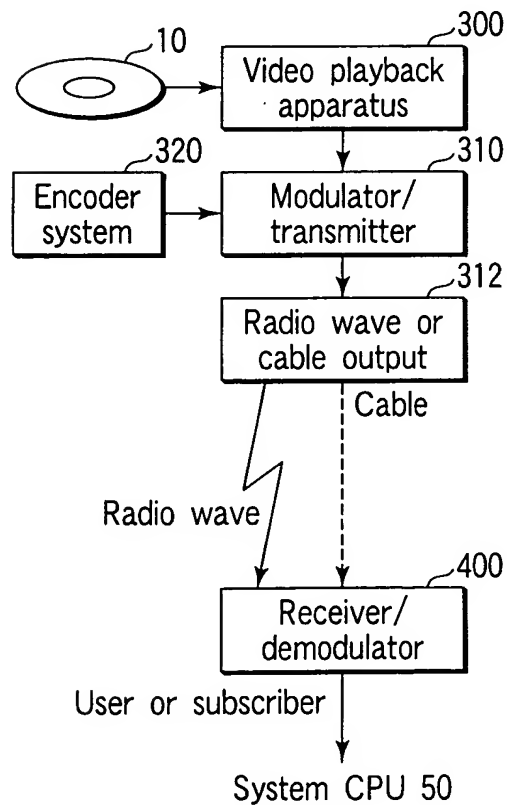


FIG. 171

Downward conversion after data mixing

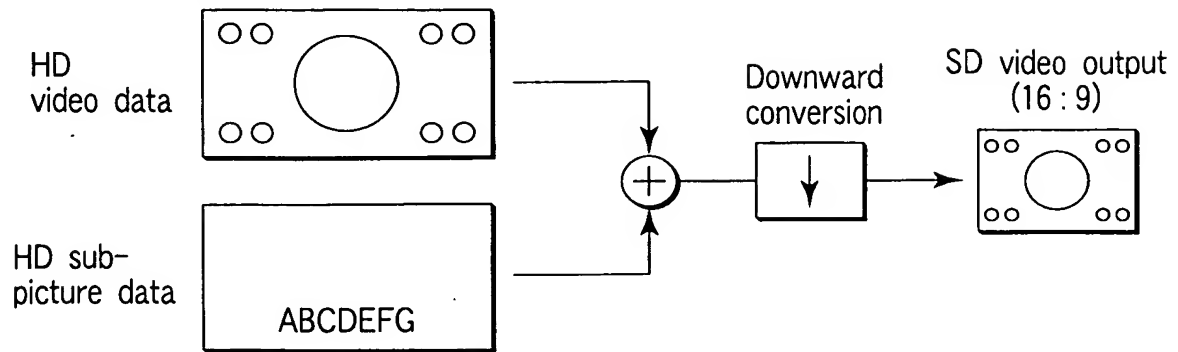


FIG. 172A

Downward conversion before data mixing

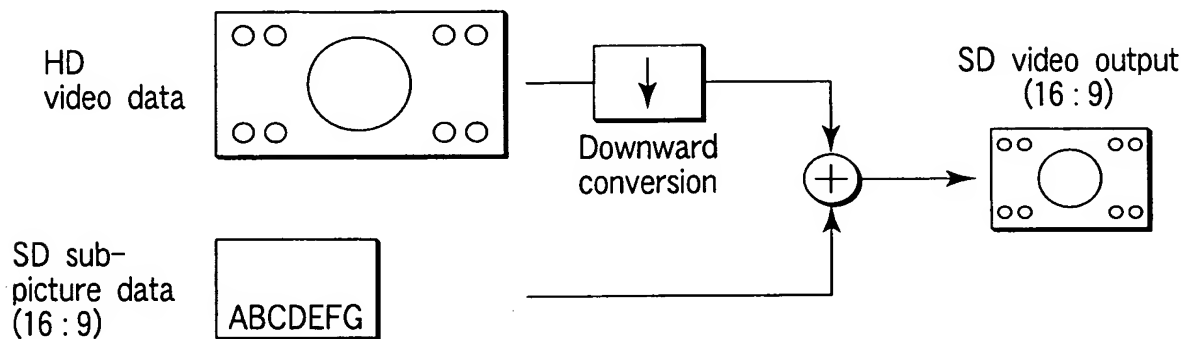


FIG. 172B

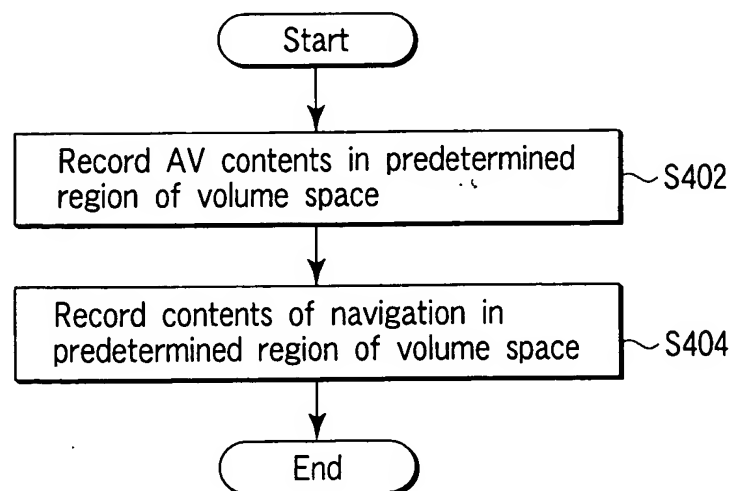


FIG. 173